THRILLING WONDER STORIES

15¢

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A THRILLING PUBLICATION

THE THREE ETERNALS
A Complete Novel of the Forty-First Century
by EANDO BINDER

SUICIDE SQUAD
By HENRY KUTTNER

If This Were You— Laid Up By *SICKNESS OR ACCIDENT-*

What Would It Mean To YOU To Get Up To $150.00 A MONTH?

Amazing New Policy

COSTS ONLY 3¢ A DAY

If sickness or accident should strike YOU—lay you up, disabled—stop your income, perhaps for months—don't face the additional worry of money for bills and expenses! Protect yourself and your loved ones with the remarkable low cost Sterling Sickness and Accident Policy! For only 3c a day this amazing policy provides ACTUAL CASH—to help pay bills and expenses! Pays you up to $150.00 a month for sickness, *including Hospital Benefits;* $100.00 a month for accident; pays as much as $2,500.00 for loss of limbs, sight, or accidental death, plus many other liberal benefits, as provided in policy.

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This policy covers sicknesses common to men and women, covers all types of accidents as happen every day in or by automobiles or trucks, on street, at home, on the farm, in factory, while at work, etc. Benefits payable from FIRST DAY, as explained in policy.

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Because we deal direct with you and have no agents, your cost of this insurance is amazingly low. Only 3c a day, in easy monthly payments, brings you all these protection features. No dues—no assessments.

10 DAYS FREE INSPECTION

SEND NO MONEY! Here's our sensational offer. Write, giving your age, and the name and relationship of your beneficiary. We will mail you Actual Policy on 10-days' FREE INSPECTION. No obligation whatever. Act now.

STERLING INSURANCE CO.

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Liberal Benefits At Amazing Low Cost

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a month for sickness including Hospital Benefits.

UP TO $100.00

a month for disability due to accident.

$100.00

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All Benefits as described on Policy

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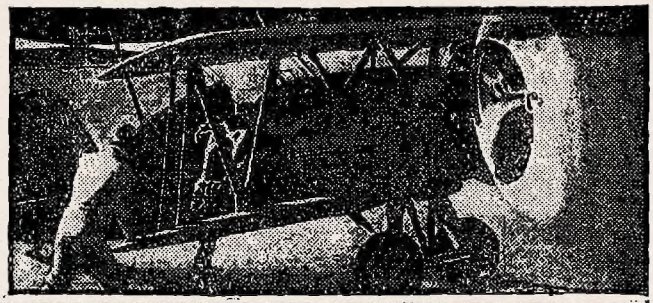
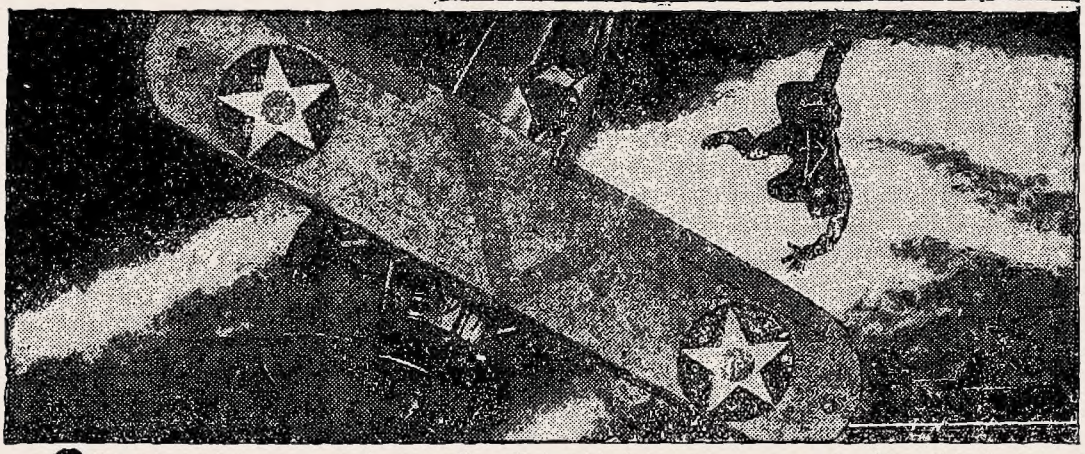
Aviation Cadet
Bristol, W. Va.

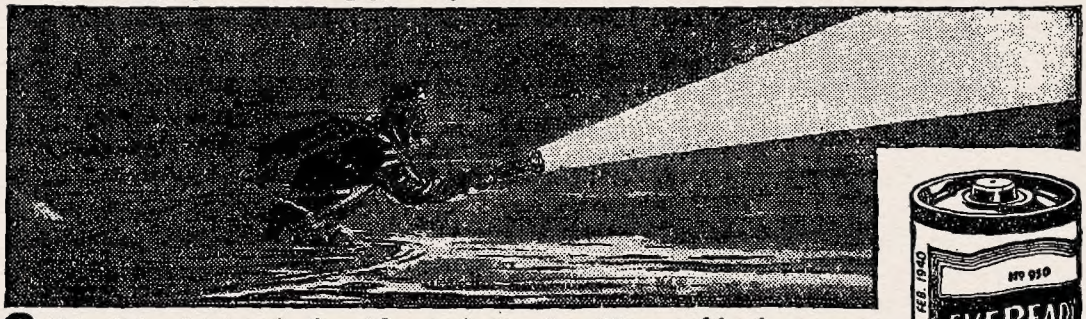
"I HAD TO BAIL OUT IN A PEA SOUP FOG!"



1 "I took off from Pensacola on a night training flight in my single-seater fighting plane," writes Cadet Harbert. "Later, as I started homeward, a heavy fog rolled in. The landing field was blotted out!



2 "It was too dangerous—for myself and those below—to attempt a landing. I had to bail out in that pea soup fog! Heading for open country, I circled at 5,000 feet until the gasoline gauge showed empty, then jammed the stick forward and catapulted into space!



3 "I landed waist-deep in the wide mouth of a river. Marooned by deep water on all sides, I grabbed my flashlight, and—despite the soaking—it worked! Guided by its beam, two fishermen eventually found and rescued me—thanks to 'Eveready' *fresh* DATED batteries—which you can depend on in emergencies!

(*Signed*) Guy Harbert"

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STORIES

The Magazine of Prophetic Fiction

Vol. XIV No. 3
December, 1939

IN NEXT MONTH'S ISSUE

DAY OF THE CONQUERORS
A Novel of Time's Dawn
By MANLY WADE WELLMAN

REVOLT AGAINST LIFE
A Novelet of a World Immortal
By FREDERIC ARNOLD KUMMER, JR.

SONG AT TWILIGHT
An Interplanetary Novelet
By ROBERT ARTHUR

VIA PYRAMID
A Short Story
By GORDON A. GILES

and many others

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● ON THE COVER

Painting by Howard V. Brown depicting a scene in COUP D'ETAT, story on Page 68.

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It Shows How I Train You at Home in Your Spare Time for a

GOOD JOB IN RADIO

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Established 25 years
He has directed the training of more men for the Radio Industry than anyone else.

Clip the coupon and mail it. I'm certain I can train you at home in your spare time to be a Radio Technician. I will send you my first lesson free. Examine it, read it, see how clear and easy it is to understand. Judge for yourself whether my course is planned to help you get a good job in Radio, a young growing field with a future. You don't need to give up your present job, or spend a lot of money to become a Radio Technician. I train you at home in your spare time.

Jobs Like These Go to Men Who Know Radio

Radio broadcasting stations employ engineers, operators, station managers and pay well for trained men. Radio manufacturers employ testers, inspectors, foremen, servicemen in good pay jobs with opportunities for advancement. Radio jobbers and dealers employ installation and servicemen. Many Radio Technicians open their own Radio sales and repair businesses and make $30, $40, $50 a week. Others hold their regular jobs and make $5 to $10 a week fixing Radios in spare time. Automobile, police, aviation, commercial Radio; loudspeaker systems, electronic devices, are newer fields offering good opportunities to qualified men. And my Course includes Television, which promises to open many good jobs soon.

Why Many Radio Technicians Make $30, $40, $50 a Week

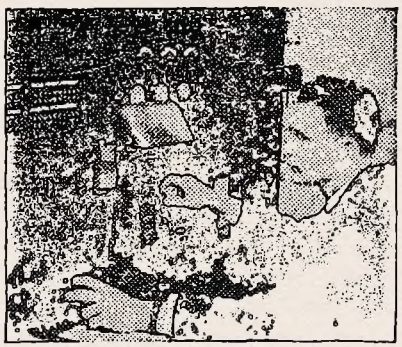
Radio is already one of the country's large industries even though it is still young and growing. The arrival of Television, the use of Radio principles in industry, are but a few of many recent Radio developments. More than 28,000,000 homes have one or more Radios. There are more Radios than telephones. Every year millions of Radios get out of date and are replaced. Millions more need new tubes, repairs, etc. Over 5,000,000 auto Radios are in use and thousands more are being sold every day. In every branch Radio is offering more opportunities—opportunities for which I give you the required knowledge of Radio at home in your spare time. Yes, the few hundred $30, $40, $50 a week jobs of 20 years ago have grown to thousands.

Many Make $5 to $10 a Week Extra in Spare Time While Learning

The day you enroll, in addition to my regular course, I start sending you Extra Money Job Sheets which start showing you how to do actual Radio repair jobs. Throughout your training, I send plans and directions which have helped many make from $200 to $500 a year in spare time while learning.

You Get Practical Experience While Learning

I send you special Radio equipment, show you how to conduct experiments, build circuits illustrating important principles used in modern Radio and Television receivers, broadcasting station and loudspeaker installations. My 50-50 method of training gives you both printed instruction and actual work with Radio parts—makes learning at home interesting, fascinating, practical. I ALSO GIVE YOU A MODERN, PROFESSIONAL, ALL-WAVE RADIO SET SERVICING INSTRUMENT to help you make more money fixing Radio sets while learning and to equip you with a professional instrument for full time work after you graduate.



Find Out What Radio Offers You

Act today. Mail the coupon for Sample Lesson and my 64-page Book, "Rich Rewards in Radio." They point out Radio's spare time and full time opportunities and those coming in Television; tell about my course in Radio and Television; show letters from men I have trained telling what they are doing and earning. Read my money back agreement. Find out what Radio offers YOU! MAIL COUPON in an envelope, or paste on a postcard—NOW!

J. E. SMITH, PRESIDENT, DEPT. 9N09
NATIONAL RADIO INSTITUTE,
WASHINGTON, D. C.

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I TRAINED THESE MEN

Service Manager for Four Stores

"I was working in a garage when I enrolled with N.R.I. In a few months I made enough to pay for the course three or four times. I am now Radio service manager for the M - - - Furniture Co. for their four stores."—JAMES E. BYAN, 1543 Slade St., Fall River, Mass.

Owns Shop. Makes $3,000 a Year

"Before taking your Course I earned about 17½ cents per hour as a truck driver. When I had completed 20 lessons I started service work. During the last year I have made about $3,000 in Radio. I now own my own shop."—KARL KELLY, 306 W. Calhoun St., Magnolia, Ark.

$10 to $20 a Week in Spare Time

"I repaired many Radio sets when I was on my tenth lesson and I have made enough money to pay for my Radio course and also my instruments. I really don't see how you can give so much for such a small amount of money. I made $600 in a year and a half, and I have made an average of $10 to $20 a week—just spare time."—JOHN JERRY, 1529 Arapahoe St., Denver, Colo.

A Tested WAY to BETTER PAY

GOOD FOR BOTH 64 PAGE BOOK SAMPLE LESSON FREE

J. E. SMITH, President, Dept. 9N09,
National Radio Institute, Washington, D. C.

Dear Mr. Smith: Send me FREE, without obligation, your Sample Lesson and 64-page book "Rich Rewards in Radio" which tells about Radio's spare time and full-time opportunities and explains your 50-50 method of training men at home to be Radio Technicians. (Write Plainly.)

NAME..... AGE.....

ADDRESS.....

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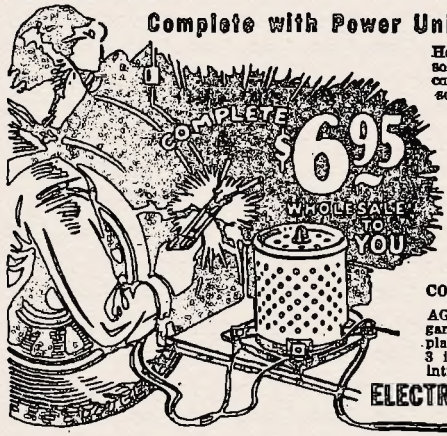
WELDING BRAZING SOLDERING

QUICKLY PERFECTLY EASILY with the NEWLY INVENTED 3 IN 1 Electric TORCH

Complete with Power Unit—Works Off 110 Volt AC or DC Light Circuit



Here at last is a portable machine that does real welding, brazing and soldering, yet is priced within the reach of all. The 3 in 1 comes to you complete with goggles, carbons, various types of welding rod and all accessories needed to do various repair jobs. It is all ready to plug in a light socket—nothing extra to buy. Simple instructions make it possible for you to do first class work easily without any previous experience or mechanical skill. The 3 in 1 instantly creates a terrific flame by just touching the carbons together.

REPAIRS FENDERS, AUTO BODIES, TANKS, BICYCLES, RADIOS, ETC.

The 3 in 1 is ideal for auto body repairs and fender weld jobs and steam fitters, plumbers, sheet metal shops, engineers, maintenance men and janitors will find it indispensable. By following simple instructions, heavy work such as bumpers, tanks and industrial repairs can be done. Ideal for the countless jobs around a home or farm. WORKS ON ALUMINUM, BRASS, COPPER, IRON, STEEL AND OTHER METALS.

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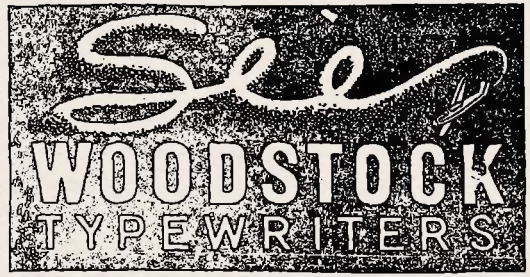

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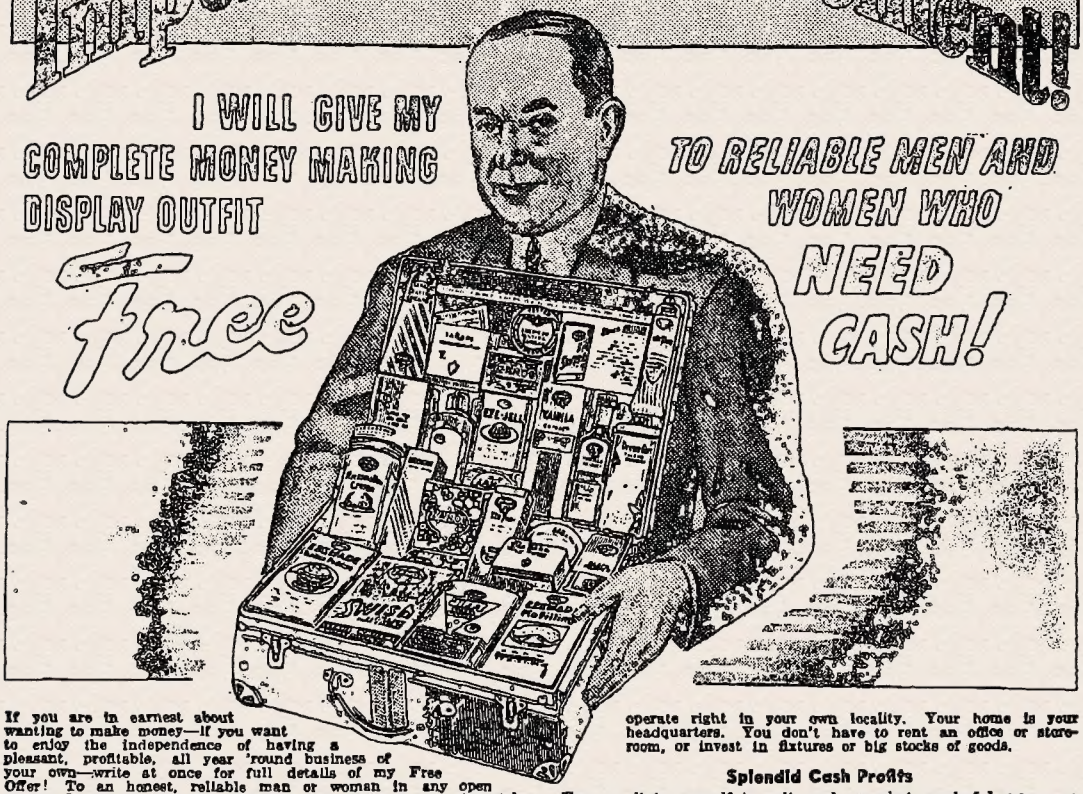

If you are in earnest about wanting to make money—if you want to enjoy the independence of having a pleasant, profitable, all year 'round business of your own—write at once for full details of my Free Offer! To an honest, reliable man or woman in any open locality I will give the big, valuable outfit pictured here absolutely FREE. You don't send me a penny. There are no "ifs," "ands" or "buts" about this offer. It is a straight business proposition—and a fine one—*for* reliable men and women who are willing to devote full time or part time.

With the splendid outfit I give you, you can start at once in a fine-paying home-owned business as Local Food Distributor. Don't think you can't, because you positively do not need experience to start. Under my simple, sure-fire plan you distribute coffee, teas, delicious food products and many other fast selling, quick repeating, daily necessities, direct to the home. You make regular calls, take orders, make deliveries and pocket a big profit. In fact, your average gross profit is from 30 to 40 cents on every dollar you take in.

I Send Everything You Need To Start Right Out

With the complete Free Outfit, containing a large assortment of regular full size packages, I also give you a proven, successful plan which anyone can follow. I give you advertising material, trial-size samples to give away, and everything else you need to start earning your very first day. And you can save money as well as make money—because you can get any or all of these household necessities for yourself at wholesale prices.

I am certain that you will find this a most fascinating business once you start. You'll be your own boss, free to come and go as you please, free to set your own hours. You'll get to meet interesting people who will become your friends; they'll welcome you into their homes and will give you steady orders. Unless you take advantage of my Free Offer you may be missing the very money-making opportunity you have been looking for!

You Handle Only Quality Products And Are Proud of Them

I wouldn't want to go into any business handling cheap merchandise, and I don't ask anyone else to do so. We maintain absolute control over the quality of our products. Each and every product in the line is tested and approved, for purity and uniform high quality, in our own pure-food kitchens and laboratories. Every package is backed by our powerful guarantee of satisfaction or money back.

Necessities That Every Home Must Buy

Another reason why my Plan has proved so successful for hundreds of men and women is that my products are household necessities—fast sellers and quick repeaters. Besides tempting foods, I have over one hundred other daily household necessities—and you can handle them all. Besides this—under my liberal credit plan—you can operate on my capital. You can operate right in your own locality. Your home is your headquarters. You don't have to rent an office or store-room, or invest in fixtures or big stocks of goods.

Splendid Cash Profits

You owe it to yourself to write and see what wonderful success so many others have enjoyed with this tested and proven money-making Plan. Let me mail you full particulars—then you can judge whether you want to start in making money at once. You can devote your full time or part time.

Certainly This Is An Opportunity Worth Inquiring About NOW

This is a sincere, bonafide offer made to you by the President of a big, reliable, old-established company operating from Coast to Coast. Under my plan, you run your own business. You don't have to be out of work, without money. You can be independent. You can have money. You can build up a sound, profitable business. You can handle all the cash and keep a liberal share for yourself. I give you FREE the big valuable Outfit containing everything you need to start. That's how much faith I have in the success of my time-tested money-making Plan. Now don't put this matter off. I don't want you to send me a penny. But I earnestly urge you to mail the coupon today and get the whole interesting story.

E. J. MILLS, President, 8050 Monmouth Ave., Cincinnati, O.

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E. J. MILLS, President
8050 Monmouth Ave., Cincinnati, Ohio

Without the slightest obligation on my part, please mail me full particulars about your offer of a Complete Free Outfit, and tell me how I can start making money at once as a Local Food Distributor for your nationally famous products.

Name

Address

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(Please Print or Write Plainly)

FOOT ITCH

ATHLETE'S FOOT

Send Coupon
Don't Pay Until Relieved

According to the Government Health Bulletin No. E-28, at least 50% of the adult population of the United States are being attacked by the disease known as Athlete's Foot.

Usually the disease starts between the toes. Little watery blisters form, and the skin cracks and peels. After a while, the itching becomes intense, and you feel as though you would like to scratch off all the skin.

BEWARE OF IT SPREADING

Often the disease travels all over the bottom of the feet. The soles of your feet become red and swollen. The skin also cracks and peels, and the itching becomes worse and worse.

Get relief from this disease as quickly as possible, because it is very contagious, and it may go to your hands or even to the under arm or crotch of the legs.

HERE'S HOW TO RELIEVE IT

The germ that causes the disease is known as Tinea Trichophyton. It buries itself deep in the tissues of the skin and is very hard to kill. A test made shows it takes 15 minutes of boiling to kill the germ; so you can see why Athlete's Foot is so hard to relieve.

H. F. was developed solely for the purpose of relieving Athlete's Foot. It is a liquid that penetrates and dries quickly. You just paint the affected parts. It peels off the tissue of the skin where the germ breeds.

ITCHING STOPS QUICKLY

When you apply H. F. you may find that the itching is quickly relieved. You should paint the infected parts with H. F. night and morning until your feet are better. Usually this takes from three to ten days, although in severe cases be sure to consult a specialist.

H. F. should leave the skin soft and smooth. You may marvel at the quick way it brings you relief.

H. F. SENT ON FREE TRIAL

Sign and mail the coupon, and a bottle of H. F. will be mailed you immediately. Don't send any money and don't pay the postman any money; don't pay anything any time unless H. F. is helping you. If it does help you, we know you will be glad to send us $1 for the bottle at the end of ten days. That's how much faith we have in H. F. Read, sign and mail the coupon today.

GORE PRODUCTS, INC. **T. F.**

849 Perdido St., New Orleans, La.

Please send me immediately a complete supply for foot trouble as described above. I agree to use it according to directions. If at the end of 10 days my feet are getting better, I will send you $1. If I am not entirely satisfied, I will return the unused portion of the bottle to you within 15 days from the time I receive it.

NAME

ADDRESS

CITY..... STATE.....

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Tampa, Fla.		Atlantic City, N. J.
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Enjoy the thrill of getting your man—with no personal danger—PLUS a regular monthly paid salary and the opportunity to share in Rewards. Learn at home, in spare time, and at low cost, the unique secrets of this young, fascinating and fast growing profession. You have exactly the same opportunity that was offered the hundreds of our graduates who now hold splendid positions in more than 600 institutions. Each of these bureaus has anywhere from ONE to FIFTEEN of our graduates on regular salaries—and new openings develop from time to time.

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INSTITUTE OF APPLIED SCIENCE
1920 Sunnyside Ave., Dept. 7969, Chicago

Gentlemen: With no obligation on my part, send me Confidential Reports of Operator No. 38, also illustrated "Blue Book of Crime," complete list of bureaus employing your graduates, together with your low prices and Easy Terms offer. (Literature will be sent ONLY to persons stating their age.)

Name

Address..... Age.....

The Story Behind the Story

THERE'S nothing new under the sun—not even scientifiction! The original sources of fantasy extend way back, far into the annals of antiquity. And fantasy writers, aware of that fact, are mining the past for story nuggets.

Greek mythology, for instance, is ideal for plot-excavating. The fanciful legends that have come down to us present a veritable gold field of story themes. Everyone is familiar with the story of Prometheus and the origin of fire. A little refining, and it's easy to visualize a scientifiction story based on this legend, wherein a pioneer space traveler from another world bequeaths primitive man with the secret of fire.

Or take the story of Medusa, and her miraculous ability to transform men into stone. Conceivably, the legend could be explained by presenting her as one of the inhabitants of another world, equipped with the fearsome power of emanating mitogenetic rays that result in petrification of the target. (Science today discusses these mitogenic rays as an explanation for the "evil eye.")

The field of mythology is a fertile one for the scientifiction writer. The legend of Atlantis alone has served as the basis for scores of fantasy tales. And what of the legends of immortality, invisibility, flying men, and others that exist? There's gold in them there myths!

IMMORTAL ANTON YORK

Previous issues of T.W.S. have featured stories of the exploits of the great scientist, Anton York, conqueror of death. Eando Binder, the author of the Anton York series, wanted to bring back his famous character in a story of the forty-first century.

Conflict had to be provided between York and one of the other characters to develop an interesting plot. Eando Binder searched the future and, finding nothing exciting there, delved into the past . . mythology . . for an opponent worthy of York's mettle. He found not one—but three! And you'll meet them too in—THE THREE ETERNALS:

In writing the first two stories about Anton York, who had the gift of immortality, I had him do feats that are almost incredible, even in science fiction—defeat fifty warships single-handed, move planets, make rings for Jupiter, etc. And I meant to have these things sound, by analogy, exactly like our mythological tales from the past.

Anton York may be called a futurized Jove, or Thor, or Paul Bunyan of lumberjack mythology. I don't mean by this that York is to be taken as deliberate fantasy. I mean rather that it is possible for deeds such as his to **become** mythological in the memory of man, after centuries of time. Just as, perhaps, the ancient heroes of immortal literature may actually have lived and done great things, but whose deeds survived only as tales of which we're rather skeptical.

At any rate, in this third story, I've brought out the mythological angle more fully than before, trying to show through the parallel of the Three Eternals how mythology may have arisen. And how Anton York is no longer a believable man, except to those he happens to contact directly. He is a myth already, as the story takes place. If he told the **truth** to his contemporaries regarding his encounters with the Three Eternals, and the mighty forces they played with, he would be utterly disbelieved. That tale is as "wild" as the tales men make up to account for strange and mighty happenings in history!

I believe that such a man as Anton York, a few centuries after each visitation to Earth, would be put down by science as purely a myth. They would explain his doings by natural forces and theories. The documentary evidence published at the time of the deed would be discounted as the gullible writings of imaginative souls, just as today we label references to Atlantis and the Greek gods and all other mythology as the writings of imaginative men. Therefore, for all of his incredible exploits, I consider Anton York as much a credible character as is any man who does things according to the empiricism of "modern" science. The science of a man who lived lifetime after lifetime might well be sheer fantasy to the present-day scientist.

All of which means I don't think these stories of Anton York are as "wild" and inconceivable as some readers may label them. Life, and the things of history—if we knew the full truth—might be more fantastic than anything we writers have ever dared create! However, the main purpose of the story is to entertain, and I hope in that point, at least, I've hit my mark.

FUTURE FILMS

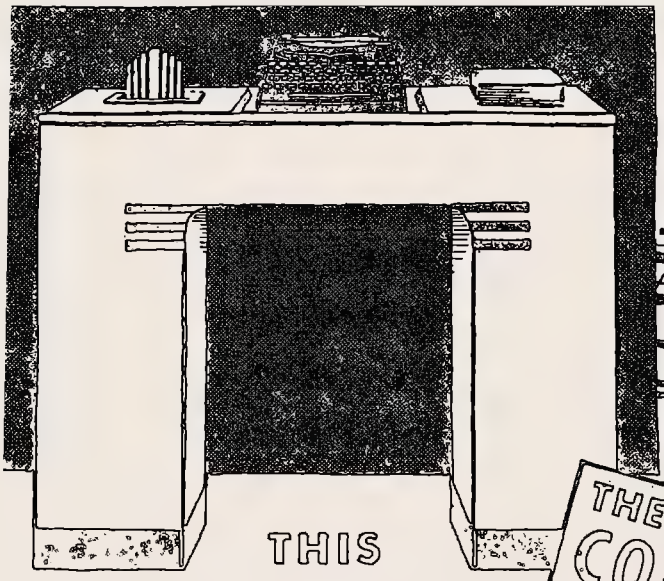
Scientifilms are popular in America today, yet Hollywood producers are slow to satisfy the growing demand for them. For, while special photography can simulate almost any desired scene, the scope required by the scientifilm is something different to be reckoned with, something that bucks the ingenuity of the most expert cameramen and technicians. Miniature models, stereoscopic effects, etc., are poor substitutes for the real thing.

In the future, when interplanetary travel becomes a reality, the sight of speeding, crashing space ships on the screen will be as commonly accepted as the thrilling aviation scenes in the flying epics of today. Yet some men will have to pilot those powerful space crafts, do dangerous stunts with them. These men, tomorrow's daredevils, will be the real heroes of such films. Henry Kuttner tells you about them in his powerful novelet, SUICIDE SQUAD. Here's contact with the author:

Some months ago MGM made a film called "Test Pilot." It was notable chiefly for the aerial stunting, genuinely dramatic stuff. Ever since the famous "Wings" Hollywood stunt fliers have been doing their dangerous tasks, often saving otherwise bad pictures from obscurity. If pictures are filmed in the distant future, as I think they will be, stunt fliers will have their place.

"Test Pilot" started the idea germinating in my mind. It isn't necessary to utilize cosmic cataclysms in order to secure good story material, of course. In fact, the potential drama of the future's everyday life has been too much neglected. We are rather inclined to take space travel and its hazards a bit for granted. But Cleator's "Rockets Through Space" takes a more practical view of the

(Continued on page 126)



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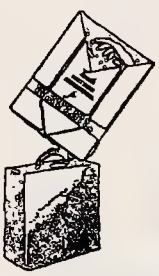

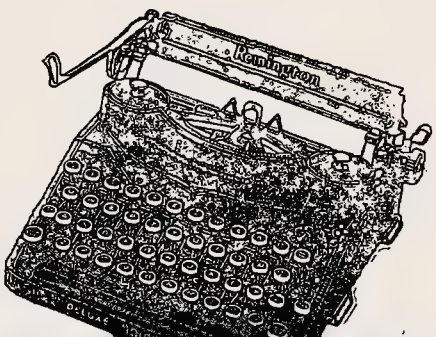

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SIGNBOARD OF SPACE

Doomed Adventurers Fling Back to Earth the Astounding Story of Humanity's Origin—Written on a World!

By FREDERIC ARNOLD KUMMER, Jr.
Author of "Candid Camera," "The Telepathic Tomb," etc.

CHAPTER I

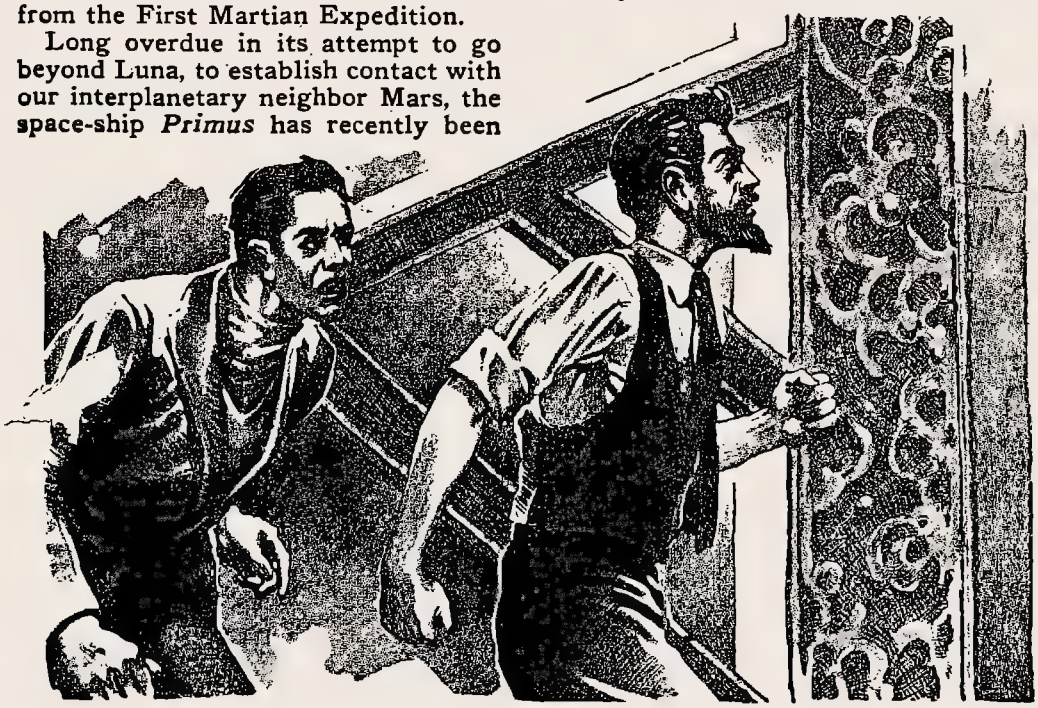
The Lost Space Ship

AND so, enjoy the smooth, wholesome richness of Capper's Concentrated Food Capsules! Don't delay! Get your package.

Ladies and gentlemen! We interrupt our regular program to bring you a special broadcast from Tycho Spaceport on the moon! For six months American Television has kept its ace commentator, Don Parker, at the Tycho station ready to flash you the news the moment word is received from the First Martian Expedition.

Long overdue in its attempt to go beyond Luna, to establish contact with our interplanetary neighbor Mars, the space-ship *Primus* has recently been given up for lost. For weeks rescue vessels have been combing space in hopes of sighting the missing ship, while work is being rushed on the cruiser *Martian* which, like the missing *Primus*, will have a cruising range sufficient to reach the red planet and return.

Meanwhile, since we have no ships at present capable of more than the trip to Luna and back, hope for the First Martian Expedition has waned. Today, however, there comes startling news from Tycho Spaceport, news of vital importance not only to those directly interested in the *Primus*'



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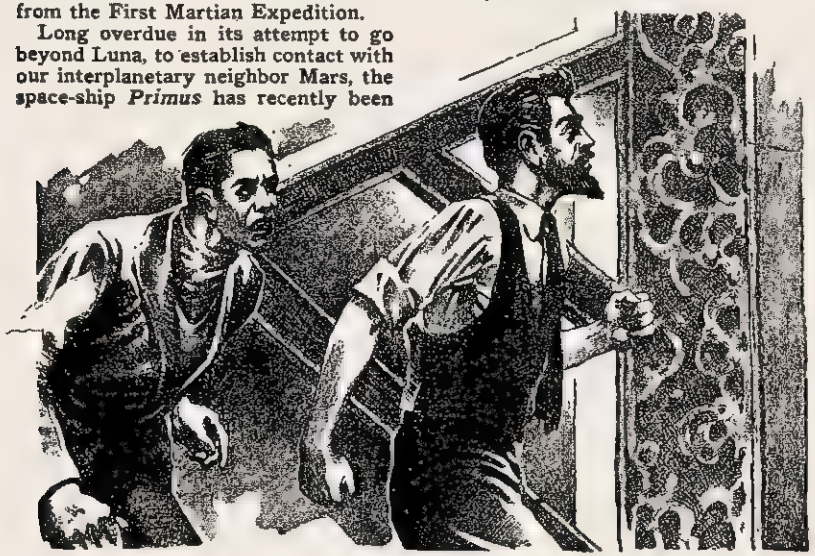


A Complete Novelet of Martian Mystery

Twelve human, transparent figures sat upon the dais

A Complete Novelet of Martian Mystery

Twelve human, transparent figures sat upon the dais

fate, but to the entire world as well. We take you now to the Tycho Spaceport on the moon. Take it away, Don Parker!

Hello, Earth! Don Parker speaking to you from this cold chunk of rock we call the moon. At exactly one-fifteen this afternoon our bridge game here in the radio shack was interrupted by a red flare of rockets, lighting up the livid, pockmarked terrain outside. A space ship was settling down over landing pit Number One. As it slanted in, we could see that it was the *New York,* which for the last two weeks had been cruising along the Martian route as far out as her fuel capacity would allow, in hope of finding some news of the missing *Primus.* And by luck, Providence, what you will, they had succeeded! Aboard the *New York* was a message from the First Martian Expedition!

No doubt on your television screens you can see the tall, rather weather-beaten man beside me. He is—step right up, Captain—Captain R. E. Stryker, master of the *New York,* who will tell you in his own words just how that message was received. Your mike, Captain Stryker!

UH—thank you, Mr. Parker! Well, I—we were cruising about fifty thousand miles off Luna, heading seventy-two degrees, lunar lineation, in the direction of Mars. I was in the navigation room checking our gravitational drift when I got a call from the bridge. Mr. Halkins, my first mate, had sighted a spot of light ahead which seemed to be a new and unknown star. It appeared as a glistening white speck against the blackness of space.

I swung the *New York* in that direction, focused my glasses upon the gleaming light. Instead of a distant star, I suddenly realized that we were looking at a small, highly polished object, comparatively close and reflecting the sun's rays. Such things are visible incredible distances in the clear vacuum of space.

Slowly we edged toward it. The drifting object proved to be a cylindrical oxygen tank, about two feet long, such as we knew the *Primus* had carried among her emergency supplies.

Halkins at once volunteered to bring the cylinder aboard. I cannot speak too highly of his courage and perseverance. Space-suited, connected to the ship by only a thin wire cable, he managed, after many efforts, to grasp the polished cylinder, to drag it through the airlock.

You can imagine our excitement when Halkins stepped from the airlock carrying the cylinder. Particularly when we saw the words, "First Martian Expedition" painted upon it. We thought, of course, that it was a bit of wreckage, that the *Primus* had been blown up or hit by a meteor. Closer inspection, however, revealed that the cylinder's escape valve had been removed and its cap clumsily, though securely, welded into place.

At once our curiosity was aroused and I sent for Mr. Gillis, our chief engineer, to open the oxygen tank. Electric torches did the trick and we glanced into the cylinder. At first it appeared to be empty but when Halkins turned it upside down, a vivavox roll fell out.

It was the log of the *Primus!* Well, we didn't like to tamper with the roll without proper equipment, so we put about and headed at once for Tycho. We landed here some two hours ago. . . .

All right! Thank you very much Captain Stryker! This is Don Parker again, ladies and gentlemen. You have just heard Captain R. E. Stryker of the rescue ship *New York* tell of finding the message from the *Primus.* Here it is, this battered vivavox roll I hold in my hand. As you can see, the outer portion of the space ship's log, consisting of the first month and a half's record of the *Primus'* flight, is hopelessly defaced. The heat of the welding operation which sealed the cylinder was unfortunately responsible for that.

As for what remains of the recording—well, for me to attempt to describe such an absolutely incredible series of events would be futile. Upon this strip of cellotos is an explanation of the doom of Mars, of the great "canals" which mark its surface, of a stupendous, almost unbelievable effort on the part of an old, dying civiliza-

tion to bridge the gap of space and convey an awful warning to a new, dawning world. It tells of the First Martian Expedition's strange fate, of the implacable stone images that drift forever in space, of inspiring courage and heroic sacrifice.

Here beside me you can see a vivavox speaker. I shall place in it what remains of the log-recording and you will hear the commander of the *Primus* tell in his own words the history of the First Martian Expedition. Just a minute please! All right! Ladies and gentlemen, the log of the *Primus!* The next voice to reach your ears will be that of Captain Howard Markland!

APRIL Twelfth. Sleep was again difficult last night. Without exercise, without mental stimulation of any sort, rest is scarcely required. Yet of all things, we cherish sleep the most, since it is escape from the maddening, nerve-shattering monotony. The silence, too, is terrifying. We have had a full month of it since we shut off our rockets.

The slightest noises, footfalls, voices, the clatter of dishes, echo loudly in our metal prison, yet that is preferable to the usual utter lack of sound. Up until a few weeks ago we were able to receive music and television shows from Tycho but the distance now is too great for radio reception.

The other three of our crew look like spectres, as indeed I do myself. They have a grayish pallor, and their nerves are shot. Keppler has grown a beard and looks like a half-starved Viking. As rocket engineer, he managed to keep occupied until several days ago. After the rockets had been shut off, he commenced to overhaul the motors, cleaning, polishing, adjusting every piece of mechanism. Now that's finished and he wanders about like a lost soul.

Dr. Varian has been in that state for weeks. As our physicist and chemist, he'll have plenty to do when we reach Mars—analyzing everything we touch, eat, or breathe. But right now he has the jitters bad.

Little Braybrook bears up surprisingly well. Spends most of his time working at a treatise on the Lunar ice bugs — *grylloblatta campodeiformis,* he calls them—and speculating on the various forms of flora and fauna likely to be encountered on Mars.

As for me, I thank heaven that the job of navigator and astronomer keeps one busy. Even so, the eternal blackness, dotted by great brilliant stars, fills me with a terrible sense of our insignificance. Earth has faded to merely another point of light in the heavens and I keep my telescope turned on Mars.

It is like a big red balloon now, twice the size of our own moon when seen from Earth, and its markings are most amazingly clear.

Well, so much for today. Keppler has concocted another of his famous mathematically accurate meals and is calling for us to come and get it. I suspect he puts a bit of benzedrine in them, for I notice that we usually feel cheerful and companionable after eating.

Markland closing this day's entry. Our position at noon, approximately 32 degrees, 14 minutes, 3.4812 seconds, Earth-solar triangulation. . . .

April Thirteenth. With Keppler occupied in taking inventory of our supplies and Braybrook busy at his treatise, Dr. Varian and I spent the day in the control room studying Mars through the telescope. It makes a wonderful sight at present. The Schiaparelli canals are amazingly clear and many new ones, invisible from Earth, are evident. Also many more dark dots, the so-called oases. Today the *Lacus Phoenicis* was turned toward us, a tangle of geometrically straight lines at the joinings of which were dark spots of varying size. I am impressed by the similarity of certain curiously regular designs, formed by the canals, to other designs which I have previously noticed upon the *Fastigium Aryn.*

More peculiar than anything else, perhaps, is the queer—well, you might say pattern—that unfolds as the planet turns before our gaze. Seen from Earth, the canals are no more than a meaningless series of lines connecting black dots. Seen from here, they are quite different. The presence of those lines and dots which are invisible from

Terra seem to tie the whole complex jumble into a regular pattern, orderly, mathematical, and unquestionably the work of intelligent beings.

But what possible use, other than as canals or immense roads, could such a queer, many-angled design have? Even among super-beings such mighty works, sweeping across continents, girdling an entire globe, seem incredible. Nor does it seem likely that such canals or great roads could have been planned or built all at one time. One would normally suppose that they had been constructed bit by bit, added to as the years passed.

Yet in such a case this queer design would hardly have been followed. Perhaps the silence, the monotony are beginning to get my nerves, too, but I cannot drive this old pattern from my mind. Complex, bewildering, yet built according to some preconceived idea. The riddle of these strangly connected figures haunts me. They hold, I am somehow positive, the secret of Mars.

Position 30° 17′ 4.3206″. Very close now. What does the future hold for us?

April Fourteenth. Everything okay. My companions busy; all machinery, air-purifier, lighting units, and so on functioning perfectly. No solution to pattern of canals. 28° 2′ 31″.

April Fifteenth. Everything going like clockwork. Mars below us now. An interesting phenomenon to watch it drop from in front of us to its present position below. Light clouds hinder observation of markings.

Everyone excited over prospect of landing. Plan to switch on forward rockets tomorrow. Little Braybrook created a laugh by inadvertently snagging Keppler while trying out one of his butterfly nets. In another day or two we will know the secret of the canals. 26° 2′ .004″.

April Sixteenth. This has been the most solemn, the saddest day since we left Luna. After little sleep and a hasty breakfast the others crowded up here to the navigation room. Clouds still prevented telescopic observations. The planet's gravitational pull, however, showed strongly on our instruments. I was afraid my calculations were off, we seemed so near, but at last I realized that gravity had increased our speed tremendously.

At ten A. M. Keppler switched on our forward rockets. The nose of the *Primus* was immediately enveloped in red flames, and the familiar roar of the exhausts broke the silence. We were all speculating on our probable landing time when suddenly Keppler ran down the companionway to the engine room.

When he returned, he was frowning, chewing his lip.

"Rocket Number Two isn't firing," he said slowly. "The ignition system seems to be all right. Must be a stoppage in the firing jet. Impurities in the fuel."

None of us answered him. The *Primus* has four large rocket tubes, two feet in diameter. At the rear of each tube is a firing chamber into which a fuel jet and a spark-gap protrude, not unlike the cylinder of an old-fashioned internal combustion motor. If a bit of waste had clogged the jet, it would be an almost impossible task to dislodge it.

I reproached myself bitterly for not having tried our rockets from time to time during the trip. Still, even the shortest test of our landing rockets would have slowed us considerably, cost us precious fuel.

"Any chance of making repairs?" Hansen demanded.

Keppler shook his head. "A two day job to remove the recoil block behind the firing chamber," he muttered. "And by that time we'll have landed or crashed."

CHAPTER II

Braybrook's Sacrifice

KEPPLER'S words killed any joy we might have felt over the prospect of reaching our destination. A landing on three rockets was ninety percent luck. Even assuming they might overcome the gravitational pull, the repulsion force would be uneven, would tend to make the ship come in at a bad angle.

We would be like an autocar trying

to run on three wheels—almost sure to slip off center, to crash. Still, there was no turning back. We were already under the influence of Mars' gravity.

Hardly a dozen words were spoken all day. We spent hours in the control room, eyes glued to the instrument panel. Keppler opened the three remaining rockets wide, but even so we were coming in at a rate far in excess of normal landing speed. It became merely a question of how bad the crash would be.

I figured we would hit somewhere near *Sabaeus Sinus,* but the location seemed unimportant now. Keppler estimated tomorrow at noon for the approximate time of our landing. Even benzedrine couldn't cheer us up this evening.

For the first time since leaving Luna I divided the night into watches. We were in too desperate a situation to take chances. Braybrook drew the first, Keppler the second, myself the third, Varian the fourth. I went directly to my bunk worn out by worry, and fell into a troubled sleep.

Around midnight I was awakened by the sound of an excited voice calling Braybrook's name. I immediately sprang from my bunk, as did Dr. Varian, who slept across the cabin from me. Keppler, his face pale, was shouting for Braybrook.

"What—what's wrong?" Varian demanded sleepily.

"Can't find him." Keppler tugged nervously at his beard. "I woke up to take my watch, relieve him—and he's gone!"

"Gone?" I said, a trifle sharply. "Don't be a fool! Where could he go? Must be aboard somewhere!"

"That's what I thought," Keppler muttered. "But—" He shook his head hopelessly.

Dr. Varian and I at once set out to search the ship. It did not take long to discover that Braybrook was missing. Absolutely mystified, we left the engine room, the supply hold, went up to the control room. Keppler was standing there like a run-down robot, his eyes on the instrument panel.

"Look!" he said, without turning.

I peered over his shoulder, gasped. According to the gravitational indicator, we were slowly going away from Mars!

"What's it all about?" Varian muttered.

"Don't you see?" Keppler said impatiently. "My God! The courage of that little man! Listen, Varian, three rockets on full power weren't sufficient to keep us from crashing. But four, on full, have started pushing us back!"

"Four rockets!" Dr. Varian repeated, confused. "Then Number Two has been fixed?"

Keppler nodded sombrely. He was thinking about Braybrook.

"Yes," he whispered. "Fixed. We didn't have time to take out the recoil block, remove the stoppage from the fuel jet. But a man in a space suit could, using a magnetic grapple, go out through an air-lock, enter the rocket tubes by the exhaust end! Could clean out the clogged jet—"

"Of course!" Varian nodded, beaming. "Funny we never thought of that before. No trouble landing now. Guess Braybrook'll be back through the lock in a minute."

KEPPLER did not say anything. Dr. Varian, as chemist, was not familiar with the details of the rocket motors. He did not realize that they were all operated by one switch, like the cylinders of a Twentieth Century airplane. Impossible to shut one off while the others were in operation. And to have shut them all off would have meant a nose-dive to Mars, death to everyone aboard.

Braybrook had gone out there, crawled into the tube, removed the bit of waste from the fuel jet—knowing that the moment he did so the rocket would roar into action! A few charred rags, bits of metal, blown by the burst of flame from the rocket tube, like a shot from an ancient cannon.

"No, Varian," I said slowly. "Braybrook won't be back."

April Seventeenth. Two hours ago we landed on Mars! Safely, thanks to Braybrook's gallant sacrifice. As luck would have it, we came down toward that part of the planet which was plunged in darkness; night. At first I had determined to swing over to the

day side of the globe, or at least hover until morning. But both these operations involved an expenditure of fuel, of which we had used more than our estimates called for, and seemed an unnecessary waste of the precious trioxine. The flare of the rockets lit up the ground fairly well, so after consulting the others, I headed for land—or rather Mars.

We were all in the control room, so tense, so keyed-up, that the gentle bump of our landing seemed an anticlimax.

"Made it!" Keppler said excitedly. "The first men to reach Mars!" And we shook hands solemnly all around.

Impossible to sleep the remainder of this night. In the light that streams from our observation ports only a flat, dusty plain is visible. Once I fancied I could see something large, indistinct, bulking against the skyline off to our left, but it might have been my imagination.

Meanwhile Keppler is shaving, in case, as he puts it, there are any good-looking women on Mars. Varian has admitted samples of the planet's atmosphere into the air-lock, is analyzing it. I hope. .

The interruption just now was caused by the appearance of Dr. Varian with good news. The air, though thin, has a high oxygen content. Moreover, he claims, the exceedingly light gravitational pull will reduce our consumption of oxygen. Every movement, every action, will be practically effortless, and as a result less air will be needed, just as a man sleeping requires less than a man engaged in violent physical exercise. If, as Dr. Varian claims, we will not be confined to clumsy space-suits, exploration should be considerably easier.

I have just seen the faint gray light of dawn through the porthole beside me. Within a few minutes we will have left our metal prison for the first time in nearly two months, to find—what? Intelligent life? The secret of the canals? Who can tell?

I must go now to check over the arms, equipment, we will take with us. The light grows stronger, and the great adventure lies ahead.

April Eighteenth. We have just returned from our first inspection of this mysterious planet. The secret of the canals is, in a sense, solved. Yet on the other hand it is more inexplicable than before. I cannot shake off the feeling that there is something stupendous, unbelievable about them.

To return to our expedition. As soon as it was light we loaded up with cameras, heat-guns, equipment of every sort, and stepped into the air-lock. A moment later the outer door swung open and we jumped down to the ground. We were on a level plain, gray-red, in the cold cheerless dawn.

The air was crisp, exhilarating, rather like that of some terrestrial mountain-top. Apart from a curious sensation of being eternally out of breath, we were not affected by it. The plain upon which we stood was covered with a fine powdery dust, half the grains red, half gray. The movement of our feet kicked it up in choking clouds.

Off to our left the shadowy shapes I had seen the night before were revealed as a line of vegetation, sweeping off to the horizon on either side, straight as a die.

"Look!" Keppler exclaimed. "It—it must be one of the 'canals'!"

We stared at the row of trees, of grass. I'm afraid I felt rather disappointed at sight of it. I had expected something big, something unknown. . . .

THEN Dr. Varian spoke; his voice sounded puzzled.

"Funny," he muttered. "This dust"—he stirred up a cloud of it with his foot—"seems to be a mixture of ferric oxide and some strange metallic substance. Impossible to grow anything in it. Worse than the Sahara. I don't see how that strip of green—"

"Let's go have a look at it," Keppler suggested. "Come on!"

I nodded and we set out across the plain. In almost no time we had reached the vegetated strip. So light was the planet's gravity that each step—or more correctly, leap—carried us several yards.

Upon approaching the edge of the canal, we were impressed by the strange appearance of the trees and

growths. Alien flora, utterly different from that of Earth. Spiny, cactuslike plants, as tall as our highest oaks, curious fungoid shrubs, bushes laden with impossibly beautiful blooms, resembling terrestrial orchids, and reeking with an odor of decay vile beyond imagining.

Creepers and vines, leprous-white, leafless, twined about the taller growths, while long, hairlike moss deadened all sound underfoot. There was, I noticed, a considerable quantity of resin oozing from the trees and plants, some of it dried hard as stone.

"Amazing! Damnedest looking vegetation I've ever seen!" Keppler leveled his camera. "No signs of animal life, either!"

While he was snapping shots, Dr. Varian dropped to his knees and dug up a square of the earth at the base of the trees.

"Rich and black," he announced. "Must have been artificially fertilized. The straightness of the line proves that. Which, in turn, proves the existence, past or present, of intelligent life on Mars. Queer, isn't it? Why should they have worked in long narrow strips?"

THAT stopped all of us. If the idea was to make farmland, then squares, or even circles, would have been more convenient surely, than strips hundreds of miles long and only a few miles across. Besides, a civilization that thought nothing of fertilizing such immense strips seemed somehow beyond agriculture. Now that I knew what the great pattern on Mars' surface was composed of, I wanted to find out why it had been made.

We spent the remainder of the day examining the wooded stretch, taking pictures, collecting specimens of vegetation, of soil. Not until nearly sundown did we return to the *Primus*.

Tomorrow, despite our shortage of fuel, I am determined to take the ship up again, cruise about, very low, to examine this strange, silent world. Odd that there are no forms of animal life to be found. Not even worms or insects in the woods. Again I have that feeling of some weird and terrible secret—and somehow I am afraid.

CHAPTER III

The Fairy City

APRIL Nineteenth. This must necessarily be a lengthy recording. And I must force myself to speak calmly, to record these events in clear, logical sequence. Even now, back aboard ship, I cannot shake off the impression that it is all a dream.

We turned out early this morning. The weather was clear as a bell. No change was visible on the interminable red desert, the long strip of green. After a hasty breakfast we started the *Primus*' motors, rose to a height of approximately one mile, and headed south, in the direction of *Protei Regio*.

Below us Mars presented a strange, bewildering picture. Stretch after stretch of red-gray desert, strip after strip of green vegetated area. The strips, we observed, were from fifteen to thirty miles wide, and hundreds, thousands of miles long. Nor were there any waterways evident within them, which destroys the popular conception of irrigation canals. What the purpose of these strips can be, we still cannot imagine.

Around eleven o'clock—if our chronometors have not been disturbed by the gravitational changes—Dr. Varian and I were in the control room when we heard a shout from Keppler. We ran at once to join him. He was standing by an observation port, literally sputtering with excitement. Dr. Varian and I peered over his shoulder—and gasped. Below us was a city!

I can recall as a child, the pictures in the story books I read. And always in such books there was the great castle in which the prince lived, or the princess was imprisoned. Dream castles they were, all slender spires, graceful minarets, sweeping towers, things of sheer unreal beauty against the picture-book sky.

So this city was, somehow ethereal, breath-taking. A small fertilized area surrounded it, like green velvet about a fragile piece of carved ivory. Yet, in spite of its beauty, there was a bizarre,

unearthly quality to the city that no terrestrial artist could have conceived. Dr. Varian and I were stunned at sight of it—stunned and awe-struck. Keppler, grinning exultantly, ran toward the control room to nose the *Primus* down.

Very cautiously we circled the strange city. No signs of life greeted us. On the alert for any hostile move, we settled the ship on the red plain just beyond the circle of green that surrounded the cluster of tall spires.

"Queer!" Keppler muttered. "Unless it's a trap."

I stared at the gardens before us. Overrun with a riot of vegetation, they seemed to have been untended for centuries. Indeed, only an occasional bench or crumbling fountain showed them to have been gardens.

"We'll take our guns, of course," I said, "but I don't think we'll need them! Let's go!"

Awed by this white fairy city, we hacked our way through the tangled mass of vines and growths, emerging at last upon a circular ramp that swept upward to the streets of an upper level.

Viewed at close range, the city was staggering. Buildings of Cyclopean proportions thrust upward on every hand in a bewildering series of terraces, parapets, flying arches. The work of master builders, Titans, it seemed, and as silent, empty as a tomb.

Every step we took stirred up clouds of gray dust, yet the white stone of the massive buildings appeared to have defied time. Proud, majestic, implacable, they towered about us, somehow terrifying, awe-inspiring. We felt strangely insignificant, like tiny terrestrial ants desecrating by our very presence some mighty mausoleum. Keppler, toiling up the huge ramp in advance of us, paused, panting.

"Creepy," he called back to us. "A place of the dead!"

AT ONCE a thousand echoes took up his voice, sent it flying back and forth among the vast piles of masonry. "Dead — dead — dead." The word echoed and re-echoed like a ghostly dirge through the empty streets, endlessly, until at last it faded away into a vague whisper. Dr. Varian wiped the sweat from his forehead and shuddered. I knew how he felt.

After a few moments' climb we at last reached the top of the ramp, the streets of the upper levels. Here there were doors, windows, cut in the white gleaming walls, through which we could catch glimpses of curious machinery, a glint of burnished metal, splotches of color that must once have been brilliant murals. And everywhere was a feeling of tremendous age, of a civilization that was old when Earth was new.

"What builders they were!" Keppler muttered. "The city might have been finished yesterday!"

I glanced along the dark, forbidding canyon between the streets. Directly before us was a large, dome-shaped building, towering high above the others. Silently, for memory of those ghostly echoes somehow discouraged conversation, I pointed toward it. The others nodded, headed for the great domed structure.

Doors fully twenty feet tall and made of curiously carved bronze closed the vast entrance of the building. As we approached them, however, some hidden electric eye sent its message and the portals silently swung open, revealing a dark, shadowy interior.

For just a moment we hesitated on the threshold. Keppler's scarred, weather-beaten face was grim. Varian was breathing heavily. We could feel the terrible oppression of the place, the weight of countless unanswered questions. Who were the people that had occupied this mighty city? How many years had passed since the hum of voices, the clatter of feet had echoed through its streets? Above all, what had caused them to abandon this magnificent place, and where had they gone?

The movement of the big doors, swinging back into place again, broke the spell that had gripped us. Keppler laughed, whistling in the dark.

"Let's go in and pay a call!" he said. "Come on!"

We followed him through the entrance. A shadowy, pillared hall lay before us, its ceiling lost in the gloom far above. A place of huge proportions, like the dwelling of giants, the

dull glint of gold here and there, vague spots of color on the walls, showed it to have been richly furnished.

At one end of the dim hall stood a raised dais, ornate, richly carved. And upon this dais were twelve figures—twelve *human figures!* Venerable, bearded men, they were, grave, erect, dignified, yet with a terrible sadness upon their solemn countenances. They were like the seated Colossi of Memnon that stare with such austere melancholy across the sands of the Sahara.

Well above terrestrial proportions were these figures, fully ten feet tall and of muscular build. Their hands rested upon the arms of the straight, thronelike chairs in which they sat. Metal tunics hung from their shoulders and their sightless eyes seemed to peer into infinity. The nobility, the majesty of their expressions filled me with a strange desire to bow before them. They were godlike, sublime.

STANDING there before the dais, I heard Dr. Varian draw a hard breath. Then Keppler ran across the hall, kicking up clouds of the omnipresent dust and tore open one of the windows. A beam of sunlight, alive with dancing motes, shot through the gloom, poured over the tall, sombre forms.

"L o o k !" Dr. Varian exclaimed. "They—they're transparent!"

I stared at the seated figures, incredulous. Yellow light was playing upon those withered hands, was passing through them! The mighty shapes were vaguely translucent!

"It—they can't be statues!" I muttered. "Figures so perfect, so absolutely clear in every detail! No sculptor could duplicate each wrinkle, each strand of hair! Some form of embalming, perhaps."

"What!" Dr. Varian exclaimed. "You believe them to be mummies? Terrestrial figures, ten feet high—and on Mars? How could they be?"

"There's one way to find out what they are!" Keppler said. "Wait a moment!"

He ran up the stairs of the dais, tapped with the butt of his gun upon the lips of one of the figures. The metal clicked sharply upon them, as though striking stone. P e r f e c t l y carved, the work, apparently, of some master artist, these twelve statues were of a translucent amberlike substance, as hard as granite.

"You see?" Dr. Varian said slowly. "Stone! Is it possible that men, terrestrials, could have come to Mars before us, and their statues been set up as gods? If not, we can only believe that the builders of the city, of the canals, were of human form! Either assumption is incredible when—"

He broke off abruptly, staring. In the lap of the central figure were several squares of thin metal, covered with queer engraved markings.

"Tablets!" Keppler cried, snatching one up. "A message, perhaps."

He blew the layer of dust from it, held the piece of metal in the light. Curious symbols covered it—symbols strange, yet somehow familiar. Lines, all straight, meeting, crossing, intersecting at round dots. Some double, some single, a geometrician's nightmare.

For a moment I stared at them, puzzled. Then all at once, the astounding truth flashed through my brain. These symobls were letters, similar to those formed by the great fertilized strips, the canals, on the surface of Mars! The intricate markings were the written symbols of a lost race! Could the so-called canals be a Gargantuan message for Earth?

April Twenty-second. I have been too busy to keep up this log the past three days. By the time we return from the city at night, we are ready only for sleep. This is due to some extent to the keen, crisp air which also increases our appetites tremendously. Cooped up in the ship during the voyage, we ate little.

We have gathered so much information during the past few days that I could use up this entire vivavox roll recording it.

The more important features, however, I shall try to enter.

Mars is a still, silent tomb—little rain, little wind, little change of temperature. We have yet to find life of any sort other than vegetable. Everywhere we turn we are greeted by an intangible feeling of hoary antiquity,

of incalculable, changeless centuries.

THE city is an enigma. We have discovered in it everything for the support of life. Machines, powered, I suspect by some atomic method, are to be found in great numbers for heating, for lighting, for manufacturing; even the synthetic production of food. Surely, with everything done mechanically, the only problem of the lost race must have been boredom.

In hangarlike buildings we have discovered great planes, and surface vehicles of queer design, all utilizing the same atomic power. Keppler spends his days trying to find out what its theory is, but so far has had no success. He gave us the surprise of our lives yesterday by rolling up to the *Primus* in one of these three-wheeled, globular surface vehicles. It ran perfectly, but he still cannot solve the secret of its propulsion.

The city must have been a paradise of beauty and pleasure. At first we wondered why, with so advanced a science, the lost race had made no attempt to reach Earth. But after viewing their home here, I begin to realize why they had no desire to go elsewhere.

In spite of all this superficial information, however, the questions which meet us at every turn are still unanswered. The twelve strangely lifelike images, with sad, silent eyes fixed on the dim reaches of eternity, are symbolic of the whole city. Even now we find it difficult to believe they are statues.

Dr. Varian, having scraped off a sliver of the hard material of which they are made, pronounces it to be a resinous compound like amber. It must have been a favorite of theirs for art work, since yesterday Keppler picked up a cunningly carved amber beetle, not unlike an Egyptian scarab, which must have fallen from a ring.

The problem of what happened to this mighty race puzzles us. War, degeneration, mass migration—none of these seem plausible. Is it our own sense of the dramatic that leads us to suspect some more terrifying, more unbelievable explanation?

Yet while we speculate about these vanished people, the solution must lie in our grasp. If Dr. Varian can decipher the markings on this tablet and the other inscriptions we have uncovered here and there about the city, the secret will, I am sure, be revealed.

Above all, we want to read the great message that sprawls in thousand-mile-long letters upon the surface of this planet. The vastness of that endeavor still stuns me. An interplanetary communication—for it must be that—written upon a world! Written in belts of living vegetation which renews itself every year by the growth and decay of new plants, trees!

But why? What message could be so important that a planet was made a blackboard? And for whom was it meant? Earth, Venus—even Mercury?

Dr. Varian claims that many of the symbols and letter forms resemble some of Earth's earliest prehistoric ideographs. If he is correct, this is a tremendous discovery. Could it be possible that at some early date communication existed between Terra and Mars? Such a theory seems incredible and yet those heroic statues are unquestionably replicas of terrestrials. How otherwise . . .

Will continue later. Keppler calling from supply hold. Seems excited.

CHAPTER IV

Written on a World

IT IS two hours since I interrupted this recording to answer Keppler's shouts. Once again misfortune has struck at us. Varian, who had been examining the amber scarab, met me as I ran from the control room and together we raced along the companionway toward the supply hold. It was full of smoke, and Keppler, his face gray, was wielding a fire extinguisher.

"Fire!" he flung at us. "Shorted wires!"

We plunged in. Within half an hour the blaze was out, but the damage it had done was irreparable. The sputtering wires had touched off our sacks of rice and flour, ruined them. Which leaves us only the canned goods for the trip home.

As soon as we had taken stock of the damage, I held a council to determine

our course. The loss of the wheat and rice meant half rations all the way back, assuming we left at once. To linger on Mars for even a few more days might bring us close to starvation before we reached Luna.

Of course, there were the Martian synthetic food machines, but without further knowledge of their artificial products it seemed unwise to depend upon them. And so, reluctantly, we have decided to take off for Luna tomorrow morning. It is with great regret that we leave this mysterious, fascinating world, with its many problems, yet our safe return will prove that the void can be bridged.

Other, wiser men will come here to learn the secrets that we could not. A new era will dawn for Earth when it solves the science of the lost race. We of the *Primus*, forerunners of the great terrestrial fleets that will soon follow, have reason to feel proud.

April Twenty-third. As I make this entry Mars is receding beneath us and the deserted city is already all but lost from view. Keppler is below, tinkering with his beloved engines, while Dr. Varian is already at work on the greatest problem of all—the translation of the queer Martian script.

Those tablets, the huge message emblazoned upon the planet, will, I feel sure, reveal the secret of Mars—the secret of the vanished race, the ancient, silent city, the sad, faraway look on the faces of those twelve amber statues. And that secret I am determined to solve.

At times I feel that some inexorable will other than my own is driving me on to fathom the dim, ancient mystery of the red planet.

The motors of the *Primus* are running like clockwork. Already we have passed Diemos, outermost of Mars' two satellites. Nothing lies before us except long days in the star-specked blackness of space. May our trip home be as successful as our first crossing!

Markland closing this day's entry. Position approximately twenty thousand miles above Mars. . . .

April Thirtieth. First entry in six days. Dr. Varian hard at work on tablets, but it is a tremendous job. Fortunately he had made considerable progress before leaving the city, being aided by the markings upon hot and cold water taps, the symbols upon the switches of the many machines, "off" and "on," the crisscross lettering beneath such pictures as had resisted decay. These have given him an excellent start. Keppler and I have been kept busy cataloguing specimens, etc. Position 36° 17′ 5.8135″.

JUNE FIFTH. Shut off rockets this morning. Half rations are beginning to tell a little. We seem to have developed tremendous appetites since leaving Mars. Dr. Varian claims to be making great progress in deciphering Martian script. Troubled with writer's cramp from my long hours of cataloguing. A few more weeks and we will be in radio communication with Tycho. Position 40° 17′ 36.0132″. . . .

June Sixth. Dr. Varian has solved the secret of the Martian script! One problem, that of spacing, the separation of words, had been puzzling him. Suddenly, only an hour ago, he says, the correct answer flashed through his mind. Once that had been discovered, the peculiar lettering was astoundingly easy.

The symbols, Varian claims, are simplicity itself. He feels certain the great message on the planet's surface might have been read long ago, despite the fact that so many of the lines are invisible from Earth, had the staggering conception of visual interplanetary communication been dreamed of by our scientists. Yet so intent has mankind been in its efforts to determine what the canals were, that no one thought they might have a meaning.

The use of vegetated strips indicates that Mars wanted its message to remain permanently, untold centuries. But why? Well, we shall soon know. Already Dr. Varian is commencing to translate the tablets we found on the lap of the amber image.

As I sit here dictating into this vivavox receiver, I can see him across the cabin, bent over the navigator's desk. The tablets, of some silvery metallic substance, lie before him, and he is working furiously, his grayish

hair rumpled, his face drawn into a frown of concentration. Through the open doorway I can hear a splashing sound as Keppler developes some photographs.

More than the tablets, even, I am interested in the huge markings on the planet's surface. It will take another day or so until we are far enough away from Mars to make them out comprehensibly. And even then, it will require an entire day to read them, for Mars revolves in twenty-four hours, forty minutes, nearly the same as a terrestrial day.

I am eager, violently nervous, from anticipation. What will that incredible message reveal? What brought about the downfall of Mars, and what great thought did its people wish to convey to the rest of space? Above all, we want to find out what this strange connection is between Earth and Mars. The terrestrial forms of the big statues, the curious similarity between this Martian script and certain prehistoric ideographs—these point to an incredible link between the two planets.

Dr. Varian is making rather slow progress at his translation, lately. He, like myself, has been troubled with what I first believed to be writer's cramp. It seems to be a numbness of the fingertips, making one's hands rather clumsy. Fortunately there is no pain. Keppler says his toes also feel numb.

Possibly we are experiencing a touch of arthritis induced by the damp cold of the space ship. This slight ailment, like everything else, is unimportant. Within a few days the greatest secret of all will be ours. Markland closing this entry. Position, 42° 12′ 4.0135″. . . .

June Seventh. Something—something fantastic, unbelievable, is taking place aboard this ship! I hardly dare believe the thought that keeps hammering so insistently at my brain. Those twelve statues . . .

Last night I fell asleep early. Toward midnight I awoke with a feeling of cold numbness about my feet. Determined to get another blanket, I threw back my covers, swung my legs over the side of the bunk. A moment later when I stood up, I experienced the curious feeling of walking on air; that is, my bare feet were absolutely without sensation, nor could I move my toes.

All feeling ceased at my ankles, as though I had been paralyzed.

FRIGHTENED, I took a step forward, and as I did so, a curious clanging sound echoed through the cabin. For a moment I was puzzled, stunned. The sound was like rock being pounded upon steel plates. Then, as I took another step, the clanging sound was repeated. All at once the sheer horrifying truth gripped me. The sound was being made by my feet—my bare feet, striking the metal floor.

Stunned, I reached down and, with numbed, stiff, fingers, touched my toes. They were cold, cold as stone!

I think I must have screamed then, for the others came running. And their feet, like mine, clanged upon the floor-plates! The gray terror of their faces in the wan illumination of the astralux lamps, is something I can never forget.

There was no more sleep that night. We managed to dress, somehow, to force shoes over our "frozen" feet. Every movement is difficult now, with our hands so clumsy. Keppler tries to make light of it, claims it is some small disorder that will soon pass away. But beneath his joking exterior I feel certain that he is thinking of the same thing that I am—of those twelve big statues, so utterly lifelike, of brownish amber.

Is it possible that they But the very thought frightens me. I must work, now, while I may still hold a pencil, help Dr. Varian decode the huge letters that stretch across the ominous red surface of Mars. Perhaps they may furnish some clue, some aid.

Our voracious appetites since leaving Mars tend to bear out the theory that keeps returning to my mind. The message—I must keep my thoughts on that! Markland closing this day's entry. Position 50° 18′ 18.0034″. .

June Eighth. Keppler has lost use of both arms. They swing heavily from his shoulders, completely helpless. The sound of them, as they clash against tables, walls, sickens me. Varian has

curious numb hard spots all over his body.

They are dark, brownish, horny. My legs are like stiff artificial ones. I do not feel sorry for Braybrook now.

Dr. Varian works incessantly at the tablets, hoping they may provide some clue as to this disease. It seems hopeless now, but we must keep at it. To think of those statues, the deadly thing that creeps through our bodies—that way lies madness.

June Ninth. Keppler is dead. This morning when I crawled from my bunk, I called to him but he did not answer. Through the open doorway I could see Varian in the control room, still bent over the desk, hard at work on the tablets. I dragged myself across the cabin, palsied with dread. As soon as I touched Keppler's body, I knew. It was as hard as stone, vaguely translucent. Hard, brown, stiff. My nails clicked against his skin as I touched it. The expression on his face—

"Varian!" I quavered. "Keppler's turned—to—to stone!"

Like a man awakening from a dream Varian arose, lurched into the cabin. He was a terrifying spectacle, his skin blotched with dark, stony spots, his eyes red, blood-shot from long hours of study.

"Quick!" he muttered. "Give him liquor! Alcohol dissolves resin."

BUT when I stumbled from the gallery with a bottle of brandy, Dr. Varian had covered Keppler's face.

"Too late for that now," he said, and turned once more toward the desk.

"Wait!" I clutched clumsily at his arm. "You—you said something about resins. Does that mean you know what it—this thing—is?"

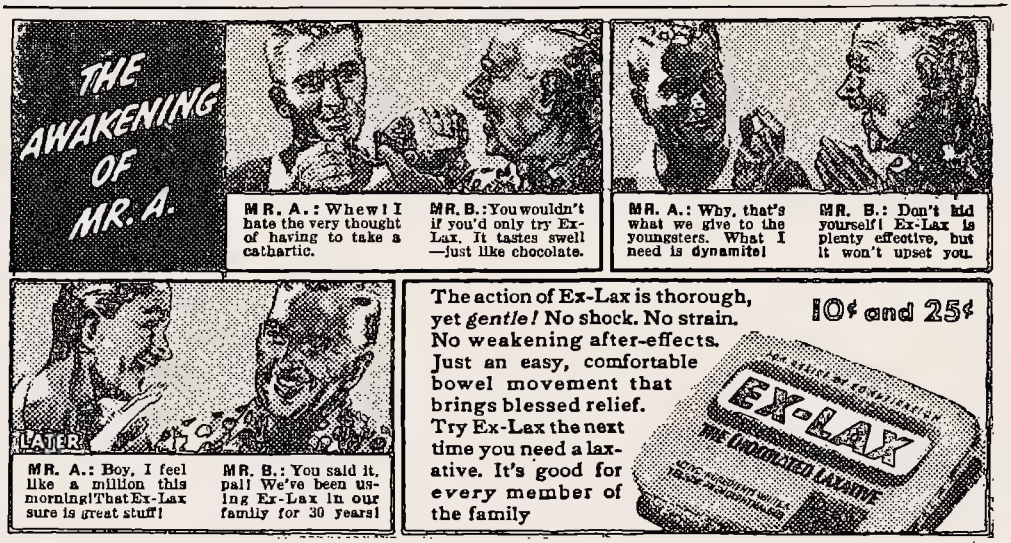
"I've deciphered the first tablet," Varian admitted. "There's no hope. We're full of the dust. Breathed it in while on Mars. And there's plenty of it that's blown into this ship while our air-locks were open."

"Dust?" I repeated stupidly. "What's—what do you mean?"

"Don't you see?" Varian exclaimed impatiently. "That gray metallic dust mixed with the red ferric oxide covered all Mars. It's a catalyst. Causes certain organic compounds in the body, of small molecular weight, to come together, form large molecules, resins. The reaction is called polymerization. Just such a process as causes the saligenin in the bark of trees to turn to resin. Resins are mainly carbon, hydrogen, oxygen, all of which, along with certain necessary fatty acids, are present in the human body. United by the catalyst, they create a hard, translucent variety of resin such as shellac is made from. Hard, tough, strong. Like amber, which is also a resinous compound, or bakelite, other plastic compounds."

"Resin," I whispered. "A catalyst! But how did it reach Mars?"

[*Turn Page*]


THE AWAKENING OF MR. A.
MR. A.: Whew! I hate the very thought of having to take a cathartic.
MR. B.: You wouldn't if you'd only try Ex-Lax. It tastes swell—just like chocolate.
MR. A.: Why, that's what we give to the youngsters. What I need is dynamite!
MR. B.: Don't kid yourself! Ex-Lax is plenty effective, but it won't upset you.
LATER
MR. A.: Boy, I feel like a million this morning! That Ex-Lax sure is great stuff!
MR. B.: You said it, pal! We've been using Ex-Lax in our family for 30 years!
The action of Ex-Lax is thorough, yet *gentle!* No shock. No strain. No weakening after-effects. Just an easy, comfortable bowel movement that brings blessed relief. Try Ex-Lax the next time you need a laxative. It's good for *every* member of the family
10¢ and 25¢
EX-LAX
THE CHOCOLATED LAXATIVE

"According to the tablets a small comet, its tail a blaze of fiery gases, passed close to Mars. Millenniums ago. The gases, composed mainly of iron, of this catalyst metal, were drawn from the comet's tail by Mars' gravity. They fell, cooled into minute particles of iron and this strange metal, to blanket the planet's surface. Buried all vegetation."

"Yet the strips—the canals—"

"Canals?" Varian passed a hand over his forehead. "They came later, when Mars realized that it was doomed. The whole race working madly against time, using planes, surface vehicles, to spread a fertilizing agent over the dust in strips to create the great message on their planet's surface. Vegetation won't grow on the dusty deserts, so they knew the shrubs, the trees, wouldn't spread and ruin the huge letters. That's as far as I've gotten on the translation."

He lurched toward his desk once more.

"Must finish work. Find out what message is. Now, while I can."

CHAPTER V

Children of Earth

HOW I have spent the past few hours, I do not know exactly. It is all like a terrible dream. Varian sits at his desk working, working muttering to himself He will not answer my questions. Perhaps he is mad.

My legs have turned to the queer hard substance as far as my hips. Little chance now. Unless message on red planet's surface—a chance it may save us.

I realize now what the twelve amber-like "statues" were. The last men on Mars! Meeting their death in solemn dignity, seated erect, immovable, awaiting the end. How strange to think that the lost race was of terrestrial mold, even though so much larger. Ten feet tall, yet the same as us. Perhaps the lighter gravity accounted for that.

And poor Keppler's scarab — that must have been a real beetle, petrified.

As I glance from the porthole beside me, I can see Mars, bulking, huge, red, menacing, against the sombre eternal blackness of space. If only Varian can translate the stupendous message that marches across its flat surface! So much to be learned, so little time. . .

Perhaps if we can remain alive until we are in radio range of Earth, we can warn them of this horror. No chance of that. No chance of anything. Must go to bed, try to rest.

June Ninth. I know everything now. Understand why Martians made canals. Poor devils! Brave—so very brave. Thought only of life, human life, regardless of planet it was on. I must think as they thought. Keep life in the Solar System. Someday perhaps when our science is more developed, Mars will regain its glory.

I was sleeping when Varian called me. His voice, hoarse, inhuman, echoing through our metal prison, awoke me. Dragging my stiff, petrified legs behind me, I crept into the control room. Varian was slumped down in his chair. There was scarcely any white showing between the dark spots that covered his face. He seemed able to move only with an effort.

"Markland!" he whispered. "Know all, now. In—incredible! Our forefathers—"

His voice trailed off, weakly. I reached out, shook him. Varian stirred, raised himself to one elbow, began to speak.

"Listen!" he muttered. "They—they . . In the year Fifty thousand, one hundred and twenty-six of their era, the comet struck, showering Mars with the catalyst. In their food, in their water, in the air—every living thing absorbed some of the particles, and was therefore doomed to the stony death. But the men of Mars, by use of drugs, diet, rays, managed to check the reaction, retard its spread throughout their bodies for ten years. An entire race, slowly petrifying, with ten years to live!"

"But couldn't they have—" I began, but Varian brushed my objections aside.

"There was no escape. Even to build space ships, to flee to other planets, was hopeless. The dust was within

their lungs and they had to die. They, the only intelligent life in the Solar System!" Varian's brown-mottled hand touched the gleaming tablets. "Their observations proved that. Venus, no oxygen. Mercury, too hot. Outer planets, too cold. Earth alone was suitable to bear human life, yet they had seen no forests cleared, no canals built, no evidences of human life. Lower animals, ape-men, alone inhabited Terra, they decided. Yet if a true species of man were introduced, the lost race thought, he might rise, progress in time to heights equal to their own."

I STARED at Varian curiously. There was a grayish foam on his lips and his eyes shone like polished ebony. Was he, I wondered, insane?

"The theory of evolution proves—" I muttered.

"It proves that Mars was right!" Varian cried. "Has anyone ever discovered the so-called missing link? The first true man? Ape-men—then true *homo sapiens*. As different, distinct, as humming birds and dragonflies. Moreover, there is evidence that true man and the ape-man existed simultaneously, were enemies. Is that possible if man evolved from the ape-man?"

Varian's eyes swung to the window, to the great planet beyond. A ruby it seemed, set in the dark onyx of space.

"Two—two mighty works the Marsmen planned," he mumbled, "when they learned they were doomed. Two breath-taking works, to be accomplished within ten years! Works not for themselves, but for the future of life in the Solar System! The first of these was a space ship, embodying all of their great science—a space ship kept free of the deadly catalyst dust. Two children, a male and a female, kept under glass from the moment of birth, were allowed to reach the age of eight, shielded from the dust which was already within the bodies of their elders, slowly turning them to stony amber.

"When the ship had been completed, the children were sealed within it. Think of the labor to create such a ship, Markland! Everything automatic, for the children, shut off from all contact since birth, had not even learned speech. It was a ship operated by robots, by strange machinery. It was built to go very slowly, so that the children might attain maturity by the time they reached Earth."

"Earth!" I gasped. "Then—then those children—"

"Their names, according to the tablets," Varian whispered, "were Admi and Ehv! You see? The Bible says, 'There were giants in those days.' Giants! Taller because of the lesser gravity on Mars! Like those twelve bodies we found."

A rattling cough shook Varian's frame, and his stony fingers clattered noisily upon the floor.

"Ship landed automatically," he wheezed. "Young man and woman, first true *homo sapiens*, stepped out into a new world! Hardly less savage than the ape-men, since they had been cut off from all contact on Mars, had spent years in the void. Can't—can't you visualize it, Markland? At first remaining near ship, retreating within it in time of danger. Then, as the race multiplied, became strong, they began to spread, push out, and the space ship rusted away. Very primitive to begin with, the true man, mentally far supe-

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—will appear MONTHLY instead of bi-monthly, bringing you twelve issues every year!

rior to the lower terrestrial forms of life, rose to—to what they are today!"

"Good God!" I stared, bewildered, at the metal tablets. The vastness of the concept stunned me. "Then—then it explains so much! So many of man's dim atavistic dreams! Why he imagines a paradise, a heaven, in the sky! His amazingly swift progress, his desire to advance scientifically! A thousand longings, instincts, at last explainable!" Once again my eyes turned to the porthole, to the brilliant red planet. "What of the 'canals', the great message written upon Mars' surface? Were they—"

"The 'canals' were the second great work the Martians undertook in that ten years of grace."

Varian's voice was faint now, barely audible. He seemed near death.

"A fertilizing agent, manufactured by atomic machines, sprayed in immense strips from planes, surface vehicles—seeds planted. Herculean labor. Never quite finished—some 'canals' were never widened sufficiently to be seen from Earth. But they hoped, with powerful enough telescopes, we of Earth might read message. They knew man, transplanted to Earth, must some day rise, build space ships. Figured these strange markings on the planet, unknown on any other heavenly body, must draw our attention until constant study solved the symbols. Man read message learn ."

DR. VARIAN groaned, toppled from his chair to the floor, stiff, almost completely transformed into the hard brown resinous compound. The *Primus* was silent as some great coffin. Laboriously I dragged myself over to Varian, raised his head.

"The markings!" I cried. "Varian! What does the message mean?"

For a moment he did not reply. Then, feebly, his stony lips parted and a faint whisper echoed through the cabin.

"Warning!" he muttered. "Afraid man might come to Mars, bring catalyst back to Earth. Wanted symbols that would remain forever, keep terrestrial civilization from the fate of Mars! Wanted life to go on!"

Varian's voice rose to a shrill, gasping scream and he fell back, inert, lifeless. As he did so, his hand relaxed and a slip of paper fell to the floor. On it were the strange crisscross markings of Mars, and beneath them these words, written in Varian's crabbed script. It read:

People of Earth! Avoid the red planet! Be warned by our fate! Mars is death!

That is the message formed by the canals of Mars, as Varian translated it. Standing here at the porthole of the *Primus*, I can see the red planet behind us, its rusty surface cross-hatched with innumerable lines—the Titanic work of a race who, dying, gave their last years that their descendants on Earth might be spared the stony death!

There are no words to describe the courage of our mighty ancestors, whose only thought was that life must go on in the Solar System! Such a valiant effort to save their Earth-born children—and such a magnificent failure! For whether or not the *Primus* returns, other terrestrial ships will head for Mars.

I, who like all men of Earth have the blood of this race in my veins, must carry on their brave traditions! I, alone, now the others are dead, must see that this ship, with the dust that has drifted into its cracks and crannies, does not reach Earth! Must see that this log, this warning, is read by the men of Terra. *Must*, to prevent other vessels from going to Mars.

From the waist down my body is hard, like amber. Perhaps God has directed the full force of the reaction to my lower limbs, thus sparing my hands except for the slight numbness first noticeable. Without the use of my hands I would be helpless to act.

I must work quickly. This vivavox roll to be sealed in an empty oxygen tank—a tank free of the smallest grain of the deadly dust. I can drop the container through the air-lock and by swinging the *Primus* about, blast it with the backlash of our rockets toward Earth. Maybe, falling into the terrestrial gravitational field, it may be discovered.

The *Primus* I shall point toward outer space, its rockets on full. I will amuse myself during my last hours in speculating as to what strange beings, centuries from now, will open this bit of metal, stare in bewilderment at the three stony, amber-hard images within.

I must stop now, get ready the oxygen tank that is to contain this vivavox roll. Soon the petrification will creep up, reach my lungs, my heart—and I will be like Keppler, like Varian, like those twelve seated figures who were the last men on Mars. I shall have to hurry.

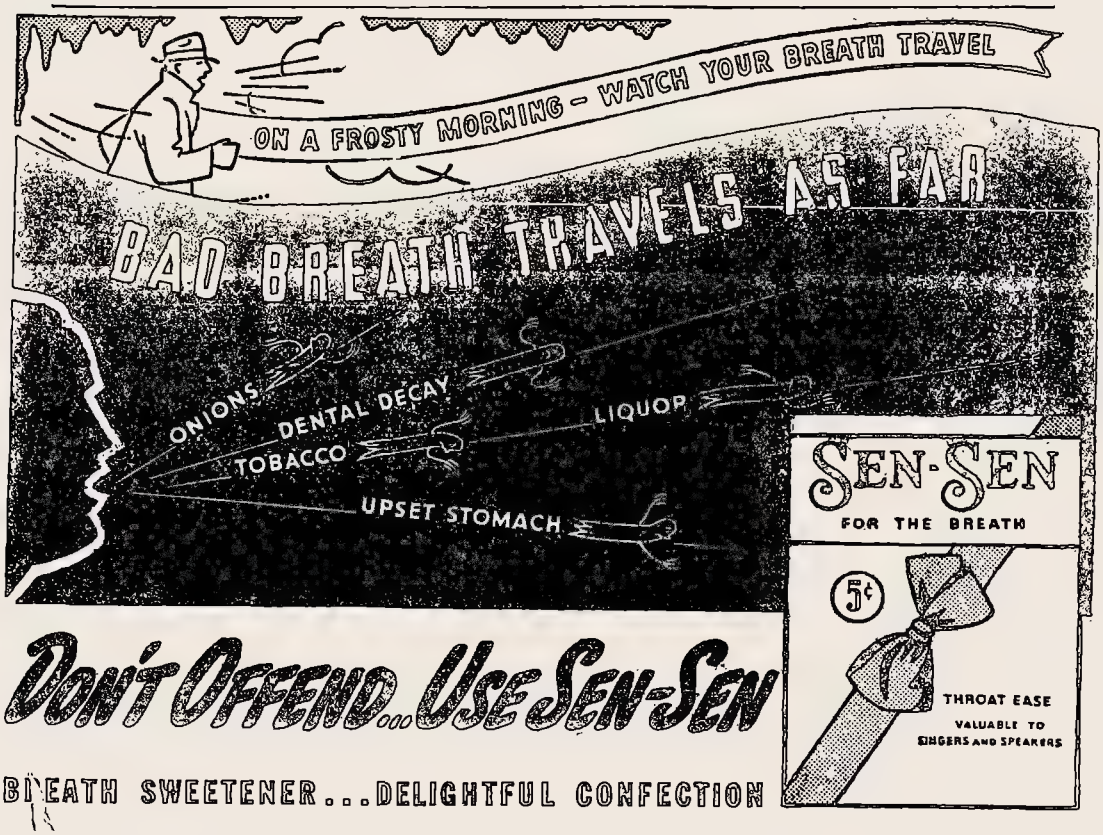
So ends the First Martian Expedition on its eighty-third day. Markland closing this entry and the log. Position 57° 44′ 43.0163″. On behalf of Braybrook, Keppler, Varian and myself, let me say—goodbye, Earth! Hail and farewell!

COMING IN NEXT MONTH'S ISSUE

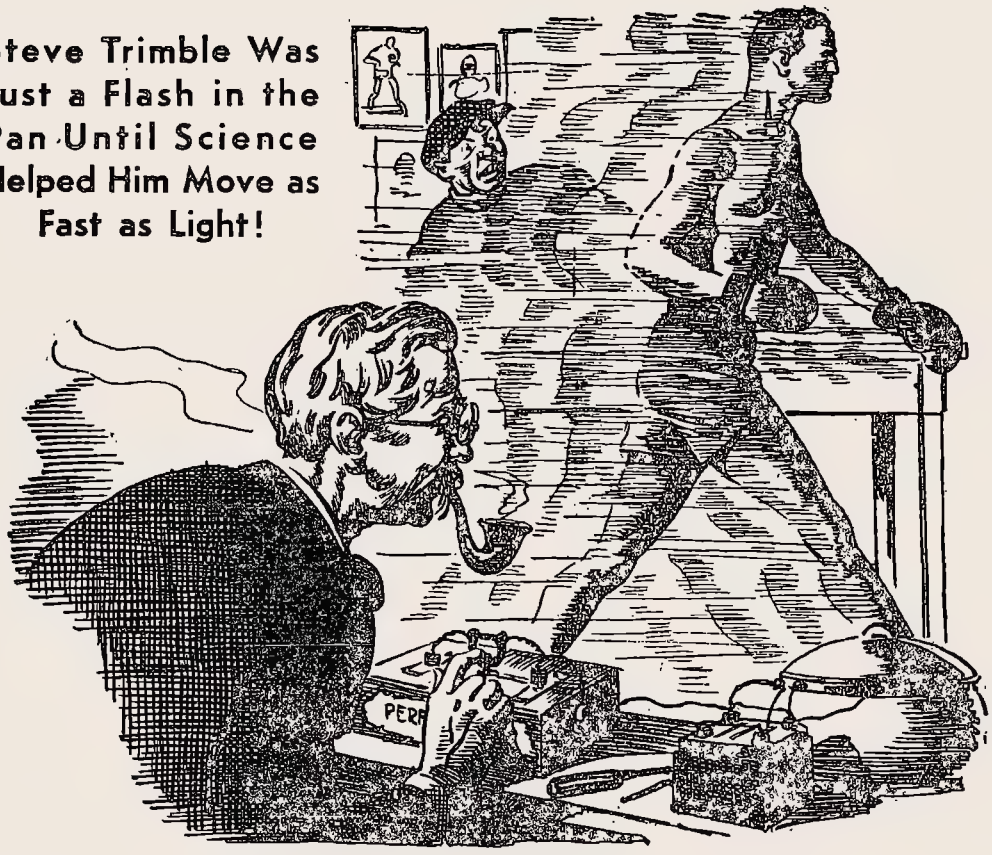
REVOLT AGAINST LIFE

A Complete Novelet of a World Immortal

By FREDERIC ARNOLD KUMMER, JR.



Steve Trimble Was Just a Flash in the Pan Until Science Helped Him Move as Fast as Light!



Trimble swept through the air, as though blown by a hurricane

THE EINSTEIN SLUGGER

By MANLY WADE WELLMAN

Author of "The Robot and the Lady," "Giants from Eternity," etc.

MARK BURBAGE, claimant of the world's championship since the retirement of Joe Louis, looked good today. His gloved fists were blurs of speed, smashes of power. His big body moved as gracefully as a dancer, as inexorably as the stars in their courses. His sinews rippled, his black eyes snapped. He looked like box-office and sudden death. Sports writers, trainers, and spectators all agreed on his merits.

Oh, yes; Burbage had a sparring partner—at least the big, buff-haired youngster, Steve Trimble, wore trunks and gloves. But he couldn't judge or match Burbage's footwork and fistwork, couldn't change pace or retreat in time. Where ring generalship was concerned, he was only a private. All he could really do was take it—and he did that, in face, belly, over the heart, on the jaw, back of the ear. It was sad, ghastly, the spectators told each other; and they watched with relish to see how sad and ghastly it was.

Finally Burbage's manager mercifully called time. The half-wrecked glutton for punishment tottered away to fumble on his robe. The watchers turned to where another lamb, apprehension on his broken face, was shoved to the slaughter; but a young woman and a plump little old man broke away from the throng and confronted the departing victim.

"Well, Steve Trimble," said the girl, too fiercely for so toothsome a redhead, "you wanted to find out if you'd ever be a fighter. And now you've found out."

The old man fingered his drooping gray mustache and peered kindly through thick spectacles.

"I hope you aren't badly hurt, my boy," he said.

"No, Professor Wadley, I'm all right". The battered face, what could be identified of it, had simple good looks—accent on the simple. Painfully it took on an apologetic expression. "I couldn't help it, Bobbie. I couldn't set myself or hit fast enough—"

"Hm-m-m," muttered Professor Wadley, as though pondering something.

"I just didn't get started," went on Steve Trimble, feeling his bruised cheek.

"But you got finished," flung back the girl he called Bobbie. "I saw you."

Steve's one open eye grew hot. "I did not. Whatever Burbage did to me, he couldn't knock me out. And he was trying."

"A most interesting spectacle," put in the Professor rather absently. He was a retired teacher of high school science. "But you *are* slow, my boy. If your coordination could only be—"

"Let me talk!" cried Bobbie, with such vehemence that two spectators actually turned away from the fascinating mayhem that Burbage was committing on his new quarry. "Steve, you graduated from college last spring—ordinary grades but lots of honors—football captain—senior most likely to succeed. I was silly enough to love you, and Dad offered you a vice-presidency in his real estate firm. He was going to put your name with his, Newlands and Trimble. But you thought you'd be a boxer, a champion—"

"I still may be," put in Steve Trimble. "Any man has a chance."

"You just had yours," his ex-sweetheart withered him. "Mark Burbage eliminated you. And I'm doing the same. You're a pig-headed, selfish brute. Good-by!"

She turned and hurried away with a swish of her becoming skirt. Steve felt himself growing stiff, as though his aching body was chilled. He went to a gloomy dressing room, took a shower, and began to dress.

"Cheer up, my boy." Professor Wadley had followed him in. "I've brought some bandages and iodine. Let me fix that face." He began doing so.

"Thanks," said Steve. "I guess Bobbie thinks I'm a bum."

The Professor taped a slashed eyebrow.

"Not quite, Steve. I've seen you and Bobbie grow up together, in the same block with me—had you both in my classes when you were in high school. I can judge you both. Bobbie's a stubborn minx; she'd be mad even if you fought your way to the top, because she's set on having a real-estate magnate for a husband. Stop fiddling with those bandages. I have a plan." He studied Steve over the tops of his spectacles, as though the pummeled fighter were a rare and curious animal. "If you could move faster—"

"Wish I could move twice as fast," moaned Steve. "Then I'd smack over Burbage."

"What if you could move ten times as fast?"

Steve's jaw dropped. Life was full of things too complex for him, and Professor Wadley was one of them. "Impossible," he mumbled.

"On the contrary." The Professor was beginning to think aloud. "Should work as well with man as horse—no real fixed limit to speed of nervous impul—"

"I flunked your course at Gwinnett High," interposed Steve, "and I still don't understand. What has this got

to do with my boxing?" He frowned.

"Perhaps everything," was the weighty reply. "Years ago, when I was a young man, I experimented—with a device to increase the speed of horses. It was not successful at first and, of course, the automobile came along."

"I see," said Steve, dutifully but untruthfully.

"But I've worked since. Certain improvements in the field of radio gave me hints. If I owned horses today—but why not apply the device to human speed? Don't sit with your mouth open, it's very unbecoming. Get on your necktie, and come to my workshop."

PROFESSOR Wadley's workshop was in reality the kitchen of his Bronx apartment. The sink, stove-top, shelves and most of the floor space were cluttered with books, beakers, evil-smelling phials, machinery and other odds and ends. Even Steve, who was not exactly prim, was shocked at the disorder.

"Sit down," the Professor invited Steve, indicating a box that had once housed a carboy of acid. His own plumpness he perched on the edge of the sink, while he filled a cracked calabash pipe.

"I'm going to make you the champion of the world," he announced. Putting the pipe in his mouth, he dug from the litter an old cigar box, set with a dial. It looked like a small, primitive radio set. "Your trouble is lack of speed. You take too long to think, decide and move. Right?"

"Just about," admitted Steve dolefully. He was thinking about Bobbie.

"That can be remedied—both mind and muscle. H. G. Wells saw it all very clearly."

Steve remembered H. G. Wells—or was it Orson?—as somebody who wrote about a Martian invasion. He said so, helpfully.

"He wrote other things, too. He foresaw the success of aerial warfare, tanks, radio, television, vitamin diets—even the W. P. A. As regards this device of mine, did you ever read his short story, 'The Great Accelerator'? Well, you should read it, and other of his works—very instructive. The story develops my exact theory, though it makes the agent a chemical compound, taken like a drug. I work with cosmo-electric force radiations, in this."

The professor tapped his little box, coughed nervously. Steve, staring dutifully, did not comprehend.

"For you, my boy, time shall trot instead of gallop. Physiologists have long maintained that the human body's chief source of dynamic energy is derived from the countless invisible radiogens free in the cells of the body. My device harnesses the tremendous energy locked in the cosmic ray, selects activating rays particularly stimulating to these energy-giving radiogens. The harmful rays, naturally, are filtered out, and the process results in the super-stimulation of all physical and mental forces in the body." The professor sighed. "It really will have to be good to make *you* think faster! Now, let us make ready."

Steve rose. He had heard much, and assimilated almost nothing.

"Ready for what?"

"To go west—a good place to build up your pugilistic reputation. I hear that one Claude Dumgard is touring the middle states."

"Dumgard? The British champion? He's a top-notch boxer."

"He'll be putty in your hands." Professor Wadley's eyes twinkled, as though he had coined the expression. "I'll send you into the ring ten times accelerated. You don't understand? You will in time. Come and pack."

CLAUDE DUMGARD had remained vertical for fifteen rounds against Joe Louis, in the final bout of that aged and now retired warrior. He was almost impossible to hurt, though no more than a fair puncher. With the title now vacant, Dumgard made loud claims, and sought to strengthen them with a series of easy fights in mid-America. So it befell that, in Oklahoma City, he readily matched himself with a buff-haired unknown named Steve Trimble.

On the night of the bout, Steve sat in a plank-walled dressing room. Only

Professor Wadley and the chief second—a broken middleweight whose apish face had won him the cognomen of Monk—were present. Steve's feet were bare. On either ankle, inside and just forward of the Achilles tendon, showed a tiny scar. The Professor had made incisions, and had lodged against the nerve of each lower leg a tiny wire of a secret alloy, very sensitive to the impulses of his accelerator waves. Monk strapped on the plates that would be to Steve's wire-set nervous system what the aerial is to a radio—thin metal slips, the size and shape of Steve's feet. His shoes hid them from sight.

"Now for the test," said Professor Wadley, turning the dial on the cigar box. "How do you feel, Steve?"

"Prflnrml."

It came out in a single syllable, but the Professor, made alert by previous tests, diagnosed it as "Perfectly normal."

"Now," continued the Professor. "Get up and walk slowly across the room."

Steve whipped up off the bench and flashed through the air to the wall, as though blown by a hurricane. He turned, twitched a quarter-second grin, then bounded back to his bench. Monk mumbled, goggled. Professor Wadley turned off the accelerator.

"Splendid," he approved. "You move, as I judge, ten times as fast as normal. When the bell begins the fight, I shall accelerate you. Move with deliberation thereafter, so that eyes may follow you."

"You kin kayo dis Limey in de foist ten seconds," Monk told Steve.

"But don't," interposed Professor Wadley. "Don't hit him at all in the first round. Make him look like a fool. Learn your new routine of accelerated boxing. Then finish him."

Someone knocked and called out that the main bout was on.

The Oklahomans in the auditorium raised a loud, expectant bellow as Steve and his seconds entered the ring. Steve walked to the center, where he and Dumgard heard the mouthed commonplaces of the referee. Touching gloves, they returned to their corners. Monk peeled away Steve's robe, and the Professor whispered final cautions:

"This Englishman will seem like a slow-motion picture of himself. I repeat, spare him for the first round. It will seem thirty minutes to you, a useful practice period. Knock him out in the second."

"Okay," assented Steve, trying his best to look wise. His seconds slipped out of the ring, leaving him to the bitter loneliness that almost all fighters know in that pre-battle moment. A bell clanged. Dumgard, all sunny hair and hammered-down brawn, came briskly out to meet him.

But Dumgard's advancing body seemed to come almost to a halt. His left foot pawed floatingly forward. His hands moved with seeming difficulty, like those of a swimmer under water. The din of spectators' voices changed to a strange drawling mixture of hoots and grumbles. The time-change was upon Steve; Professor Wadley, turning the dial, had accelerated him tenfold. Remembering his instructions, Steve took his stance deliberately. Even so, he must be moving faster than Dumgard. The crowd expressed drawn-out approval.

Dumgard drifted in close—he liked infighting. His left glove rose faceward, slowly as a soap bubble. Steve ducked, letting it amble around his neck. Sidestepping, he passed around Dumgard and stopped behind him. The Britisher revolved slowly, as if on a low-geared turntable. His mouth sagged open, his eyelids hoisted back in astonishment. The voices of the crowd were a slow lullaby:

"Kkkkiiillll . . hhiimmm . . . nnnnnoooookkkk . . . hhhhiiimmm . . . ooowwwwttt."

Those exhortations, explosive to a normal ear, almost sang Steve to sleep.

DUMGARD'S mouth was a long time closing. A fat fly, winging past at a seeming crawl, paused and peered in, weighing the advisability of entering. Steve could not help laughing. Dumgard, angered by that brief snicker, struck. Steve avoided the jab with an easy rock of his head, and feinted with his own left, halting it a quarter-inch from Dumgard's jowl.

Another wailing roar showed that the spectators scored it as a real blow.

Steve, encouraged, set a short one to Dumgard's stomach, pulling it with a millimeter to spare. He faked uppercuts, hooks, a left to the ear, while Dumgard's defending gloves were always inches too late. The crowd drew out Steve's name in an admiring peal. But Dumgard set his teeth. He hurled himself at Steve, to whom the effort seemed almost middling brisk. Dumgard's wide-swinging fists, if they ever connected, would knock him clear out of Oklahoma.

But Steve sidestepped. Dumgard dived into the ropes, which snapped him full-sprawl on his back. Steve, to infuriate his opponent, posed à la Max Baer—hands on hips, head cocked, face grinning. Dumgard, rising as quickly as his unaccelerated muscles allowed, came back to the fray.

There was plenty more of the same—Dumgard striving futilely, Steve foiling and faking. It was unorthodox, but worth watching if your eye was quick enough. Steve, however, grew bored. If only Bobbie were there to watch—but she was states away. He had plenty of time to watch the clock in the gallery, marked for three minutes only, to time the rounds. Its hands loafed, and Steve yawned. He felt as though he had strolled two miles through level, dull country. . . . Now only seconds remained to finish the round. Steve was inspired to test the force of a blow, a light one.

Dodging an ineffectual one-two, he sighted high on Dumgard's rugged brow and shot a short right.

Next moment he reeled back, his fist and forearm galvanized with pain. And Dumgard was down in a slack heap.

The referee, a dreamily flapping gray shirt, was motioning Steve back. In his agony and astonishment, Steve had forgotten to seek a far corner—Dumgard would get one of those long Tunney counts. Steve turned away across the ring, conscious of the crowd's slow roar, a toneless dirge.

He leaned his unhurt left hand on the ropes and nursed his throbbing right. The referee's arm rose and fell like the laziest of drawbridges. He counted: *"Tooooooooo . . thhhhrrrr . . ."* Ten seconds would last long. Steve attempted mental arithmetic—ten times ten, it would seem a minute and a half. Dumgard looked peaceful. The crowd sang Steve's praises maddeningly slow. The count dragged on: *"Ssssevvvennnn . . . aaaaaayyyyttt."*

The bell clanged lazily. The first round was over.

At once the whooping outside the ropes speeded to normal tempo, and the rush of Steve's seconds to the ring was swift.

"Why did you shut the thing off?" Steve asked Professor Wadley. "Don't I get a long rest?"

"Surely you don't need rest, after that mild exertion," chided the Professor. Steve groaned as Monk touched his right forearm.

"You hurt your hand?" asked the Professor. Steve nodded. Across the ring, frantic seconds treated the slack, pale-bodied Dumgard with restoratives. "I overlooked that phase—stupidly," admitted the Professor. "A normal blow's speed, as I remember, is thirty or forty miles an hour. Multiplied by ten—"

"Say," gasped Monk, "if you'd smacked dat limejuicer wid all you had, in de jawr—"

"Don't hit him again, Steve," ordered Professor Wadley. "You'll injure him and yourself, too. Make a pretense, more of those flicking comeaways. Outpoint him."

The bell rang. Professor Wadley twisted the dial, and Steve slid back into a slow-motion world. Dumgard, staggering as through molasses, came to face destruction.

EVEN to Monk and Professor Wadley, the second round was fast, bewildering. Dumgard was allowed to survive, but he was eclipsed by the leather-gloved lightning that was Steve Trimble. He moved so fast that there seemed to be three boxers instead of two. Dumgard might as well have boxed a swarm of mosquitos. He tried to clinch; it was like laying hands on a ghost. Yet, when the bell rang, the Britisher had recovered some of his

strength. Steve, in his own corner, showed a grimace of pain. "This hand's killing me," he said.

"Stick it fer eight rounds," begged Monk, and Steve flinched. Eight rounds —eight half hours—he could never endure it. At the bell for the third, he bounded out purposefully, meeting Dumgard in mid-ring.

Steve's left glove whizzed, more like a streak than a glove. Something cracked, like a beer glass in boiling water. Dumgard fell without a twitch. The referee counted ten—he could have counted a thousand.

The referee lifted Steve's flinching left hand in token of victory. Then, to a deafening storm of cheers, the Professor and Monk hurried him to his dressing room. As they left, Dumgard's second roared for a doctor.

Behind closed doors, Monk cut away Steve's gloves, and the blood-soaked bandages beneath them.

"Compound fractures, both hands," said Professor Wadley at once. Stepping to a telephone, he called the box office. "Have you got a doctor for Dumgard? Well, get another for Trimble."

The late editions of the Oklahoma City papers sang fulsome praises of an unknown paladin who, moving fast as light—so went one unscientific estimate—cut down the indestructible British champion. A day later the Metropolitan sporting pages took up the paean. One writer asked Professor Wadley for his fighter's *nom de guerre,* and the Professor created one on the spur of the moment—the Einstein Slugger. Few sport experts saw any reason for the name, but they liked the sound. John Kieran, in New York, wrote a learned half-column about the fourth dimension into which Steve's opponents were apt to be hammered. The name stuck.

When hospital surgeons reported that Dumgard's shattered chin would grow back on, after all, Steve drew a breath of relief at his hotel. Professor Wadley rejected attractive offers for the Einstein Slugger's appearance at big fight clubs in Chicago and New York.

"Those hands stay in casts for a month," the Professor decreed, "with six more months of rest. Meanwhile, I've solved your problem."

"Problem?" echoed Steve. "You mean arithmetic, or something?"

"Mathematics, and engineering." The old man took a boxing stance. "You mustn't hit, Steve. You must push. Like this."

Steve stared and tried to understand, while the Professor brought up his right. It floated slowly but tensely. "You push," repeated the Professor. "Your fist travels, to your own accelerated perception, at about fifteen miles an hour, the speed at which your hand moves when reaching for a book or sandwich. You're doing a punch in slow motion, timing and forming perfect. But by normal time, you travel at a hundred and fifty miles an hour. Understand?"

"All but one thing," said Steve. "If I'm doing a hundred and fifty, some traffic cop—"

Sighing, the Professor explained again.

"Research shows that an average man punches at thirty or forty miles an hour. Trained, gifted punchers move faster. Joe Louis, in his prime, had an estimated hand-speed of a hundred and twenty-seven miles an hour, while Dempsey's fist could attain a hundred and thirty-five. What happened, when such blows landed solidly, is history. I propose to give you a punching speed of a hundred and fifty miles. Do you follow me now?"

Steve was interested, at least. Again his mentor demonstrated the slow-motion push punch, muscles tense, fist traveling toward an imaginary mark. "Your knuckles encounter your opponent's chin, and you keep pushing, deliberately and solidly. It becomes the equivalent of the fastest, hardest blow ever struck. He goes down."

Later, when Steve's hands healed, he practiced. At the end of the seven months' rest period, Professor Wadley signed him for two fights on successive Thursdays.

IN Philadelphia he fought tough Tony Tarpio, who had always hoped to beat Joe Louis. Steve knocked

him out in the first round, with a left jab. In Boston, a week later, Steve encountered Sam Jam Jones, the Negro heavyweight who was called the best defensive boxer in his division since Jack Johnson. Steve stopped him in fifty seconds, with a right hook.

Both decisive blows were unthinkably fast, clean and powerful, but there were no such injuries such as had forced Dumgard to retire and open a pub in Nottinghamshire. Slow-motion pictures revealed, to any who might know what to watch for, that Steve had mastered the science of pushing opponents into dreamland.

After the Jones fight, all Boxiana clamored for Burbage, the outstanding title claimant, to meet the rising Einstein Slugger. It was quickly arranged —fifteen rounds at Yankee Stadium on June 14, to determine the new champion. The purse was sixty percent of the gate, to be divided equally between the two.

STEVE was to train at Madame Bey's. On his last evening in New York, while he sat gossiping in the Professor's Bronx apartment, a knock sounded at the door. Professor Wadley opened it, to admit a girl with red hair.

"Bobbie!" exclaimed Steve. As he rose, the girl drifted into his arms like so much snow, but warmer. Her modishly bizarre hat crushed against his shoulder.

"I ha-had to come," she confessed tremulously. "I was wrong. Now that you've shown me—become successful —won't you come into Dad's real estate busin—"

Steve, on many a lonely night, had rehearsed many times what he would say on such an occasion. Now he began, with what he thought was a mocking laugh.

"You don't think I'm a failure any more, eh?"

Bobbie's pretty eyes widened dangerously, as he went on.

"You said you were through with me. But now that I'm fighting for the championship—"

"Stevie! I swallowed my pride to come here. And Dad still hopes—"

"I've earned more money in three fights than your Dad can make in a year." Steve drew a breath, and decided he had punished her enough. But, before he could shift to tender words, Bobbie turned and ran to the door. She moved so swiftly that Steve wondered if she were wearing accelerator plates.

"Steve Trimble," she said heatedly, "if I ever speak to you again, I hope my tongue snaps back and breaks my neck!"

The door slammed behind her. Steve stared, with the dazed expression of one who forgets to duck a solid right swing.

"Hm-m-m," said Professor Wadley, who had listened with academic interest. "You handled that case badly. That's not strictly true, about her mind changing because you were a success. If she was greedy for fame and money, she'd want you to beat Burbage and win the title."

"I intend to do that," said Steve.

"You should have said so more diplomatically," the Professor replied, producing the old calabash pipe. "Psychology, like most sciences, is a closed book to you, my boy. You might have had the title, and Bobbie, too. She loves you—or did, when she came through the door tonight. And I deduce, by your blank expression and red ears, that you love her."

This last was true, but Steve's face grew red to match the ears in question.

"I'll show her," he snapped. "First I'll kayo Burbage—"

"Once," continued Professor Wadley, "Bobbie was too harsh in her treatment of you. I tried to help you then. Now you are too harsh to Bobbie. You need discipline. I wonder," he said thoughtfully, "if I hadn't better forestall your conquest of Burbage, let you fight him on even terms. No, even better, make him certainly invincible."

"You don't mean," gulped Steve, "that you'll take your speed machine over to him! You won't desert me like a—rat leaving a wrecked ship!"

"A rat leaving a wrecked ship," repeated the intrigued Professor. "Very well put, my boy. That's exactly what I shall desert you like."

In the morning, newspapers told how Steve Trimble, the sensational Einstein Slugger, had quarreled with his manager; and how the said manager had forthwith become one of the strategists in the camp of Mark Burbage.

YANKEE STADIUM was a giant's platter of darkness, and on its sloping sides rose vast constellations of blazing cigarette-tips. A cascade of light flooded the central square of roped-in canvas. A nearby platform was crowded with cameras, and along the ringside tables thronged sports writers, telegraphers and radio announcers with microphones.

Steve sat glumly on his stool. Burbage swung in opposite him, and Steve saw Professor Wadley among his rival's handlers. He saw, too, the shabby cigar-box that housed the accelerator. Even without that thing, Burbage could outpace and outpunch him. And with it—Steve, generally not too imaginative, shuddered at the mental picture. Bobbie would be delighted. Probably she had come to see his downfall. Maybe she'd brought her friends, with bags of popcorn and a holiday spirit.

The announcer introduced from the ring whole phalanxes of grizzled celebrities, and several younger behemots who vaingloriously challenged the winner of the bout. Then the referee appeared, beckoning Steve and Burbage to him. More of the old bromides:

"I want a clean fight—one foul may lose the decision—when I say 'break', I don't mean 'swing yer partner'—in case of a knockdown, man scoring it goes to a neutral corner—good luck to both of you—"

And once again the lone moment in his corner, with Burbage, ripple-muscled and hard-faced, waiting. The bell.

Out came Steve, cautiously. And out came Burbage, sprinting like Jesse Owens. Steve saw the big form rush up to him, a fist that darted at him and landed with a crash like a falling kettle. Steve felt his shoulder-blades bruising the canvas. He rolled over, got his knees under him, and crouched while the referee counted. Burbage was jigging in his corner—probably with langour, but to Steve he looked as agile as Fred Astaire doing the Yam.

At the count of nine, Steve rose groggily, and Burbage rushed back, blurred with swiftness. By sheer luck, Steve caught him in an embrace and hung like a lantern on a tossing pole. The referee besought him to break, then pried him away. The stadium's onlookers were exhorting Burbage, with one giant voice, to tear Steve's buzzing head off.

"You couldn't knock me stiff," Steve managed to taunt. "I can take it."

Burbage had paused for a moment to hear; the twelve words must have spread themselves a long way in his speeded hearing. It irked Burbage, who must remember how Steve had stood up to punishment in the old days. But he did not try for a second crushing blow, but began to spar maddeningly, with gloves darting in and out like the heads of twin cobras. They flicked and grazed Steve, each contact rasping away a bit of skin like the lash of a whip.

Steve did his best to close, knowing that he was at Burbage's mercy otherwise. But Burbage melted away like a shadow, and hit him a short one—it must have been a wrist-action push. It spilled Steve on his face, and sent him tobogganing across the canvas. He came to a quivering halt just under the ropes, looking into a face at the edge of the ring—Professor Wadley's, all gleaming spectacles and lank mustache. Behind it, in the first row of the ringside, hung another face.

Bobbie Newlands! And she wasn't glad, she was horrified—tearful!

"Six," the referee was counting. "Seven—"

STEVE got up on his knees, his chin still on the canvas. There was laughter, he must have looked like a cow rising. He struggled erect, holding to the ropes with both hands. The referee waved Burbage back, caught Steve's gloves, and cleansed them of resin by rubbing them on his shirt.

"You feel all right?" he demanded solicitously.

"I feel swell," Steve blurted, and trotted around him to face Burbage.

He tried a left. Of course, it missed by two feet. Burbage sank a right so far into the ribs that Steve's other flank bulged out. Bending over like a tree axed midway, Steve managed to put his palms to the canvas and push himself straight once more.

"Lriwsgy," said Burbage, in one bark. He meant, "All right, wise guy," and if Steve did not understand the words, he understood the scowl of murderous determination. Burbage cannoned himself up on Steve, who ducked only partially. Another right exploded like a shell on his cheekbone, and he went down yet again. Dizzily, he took a count of nine before he hoisted himself once more.

Three times down in less than a minute—and one more of those terrific push-punches, traveling faster than Dempsey's or Louis's most brilliant efforts, would finish him. Not even his undeniable stamina could hold him up longer. He tottered drunkenly, unable to lift his gloves. The referee yelled at him to defend himself, the crowd exhorted Burbage to finish the slaughter. As for Burbage, who with a flick could end the agony, he chose to be triumphant in advance. He danced in front of Steve. Incomprehensibly, he was suddenly just dancing—no longer full of super-normal speed.

"Try and hit me," Burbage dared; and amazingly the words came out slowly and naturally! Steve heard every one of them clearly.

"You couldn't land on me with a handful of birdseed," Burbage continued. "Come on, hang one on me." He lifted a glove to tap his jaw in invitation. That glove moved to that jaw in no more than a measurable second!

Steve might have puzzled over the mystery from then until the following winter solstice, but long ago he had found it easiest and most profitable not to puzzle over the strange aspects of a world he had never made.

"Hit me," dared Burbage once more, plainly expecting a lazy attempt that he could easily and brilliantly parry. And Steve complied.

His right glove weighed a ton as he whipped it up with the last of his ebbing strength. And with a ton's weight it landed upon the jaw of Mark Burbage, who had expected nothing of the kind. The sneer on Burbage's face suddenly melted into an expression of blank amazement that would have done credit even to the oft-baffled Steve Trimble at his stupidest. Then even that visage was lost to view; for Burbage spun around and fell down upon it, with an abrupt and restful looseness that showed no signs of tightening all through the referee's counting.

The Einstein Slugger had become champion of the world—without the accelerator, and by defeating an opponent who had gone into battle accelerated.

There were flashlight photographs, congratulations, deafening cheers, and a police escort. When Steve struggled his way back to the dressing room and opened the door, he saw two people awaiting him.

They were Professor Wadley and Bobbie Newlands.

"I'LL give up my title tomorrow," Steve insisted for the tenth time. "Retire, like Joe Louis, and go into your father's real estate firm. I'll go into the Salvation Army, if you say the word."

"No, no, darling," Bobbie argued fondly. "You're the champion now, what you always wanted to be. You can stay champion just as long as you—"

"Ahem!" interjected the Professor. "May I suggest that Steve do both? Be champion, that is, and at the same time invest his money with Bobbie's father? You can be a great figure in both pugilism and business at the same time, Steve. Gene Tunney managed it. And look at the success made by Mr. Jack Dempsey."

Steve looked long at the Professor. "I still don't—"

"I know, I know," Professor Wadley nodded. "You still don't see. Once again, Steve, I shall recapitulate."

He produced and lighted the calabash pipe.

"I told you that you needed discipline," he reminded. "I thought I would administer it by taking my accelerator to Burbage and letting him

thrash you well. That, I felt, would teach you a lesson."

"I sure deserved it," Steve admitted contritely.

"And so the fight began—Burbage accelerated, you helpless against him. But Bobbie was watching. She couldn't stand to see you battered so, without even a chance to fight back. She came from her seat to my side, and pleaded so sadly that I—well, I turned off the accelerator. That was the moment when Burbage so whimsically invited you to strike at him."

"And Steve did!" added Bobbie. "Oh, what a fall there was, my countrymen."

But Steve's mouth was hanging open.

"Say, Professor," he said, "I wish that you'd take time some day and explain again just what this speed machine that you invented does to a fellow."

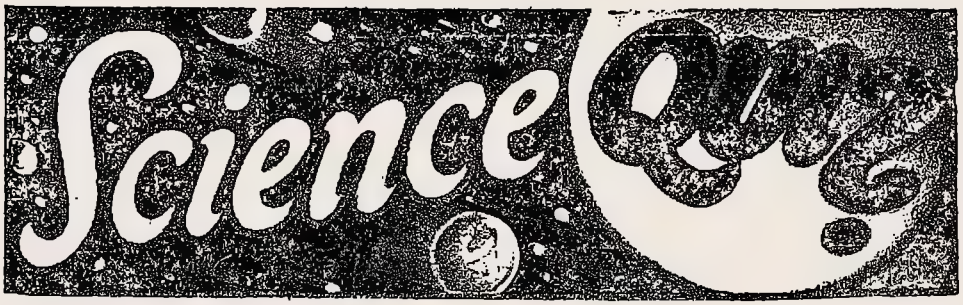
NEXT MONTH

SONG AT TWILIGHT

An Interplanetary Novelet Introducing the Solar System's Most Captivating Quartet—the Abbott Family!

By ROBERT ARTHUR

Behind the eight ball? . . . Too bad, pal!
Use Thin Gillettes to win this gal!
You get good-looking shaves that please . . .
Save time and money . . . gain new ease!
Precision made to fit your razor exactly
Gillette
BLADES
4 for 10¢
8 for 19¢
The Thin Gillette Blade Is Produced By The Maker Of The Famous Gillette Blue Blade



HOP on the star-wagon for another blazing duel with scientific words, wits, and wisdom. This month's scintillating collection of high-voltage brain-teasers should keep you and your friends guessing for many a moon. If you need any light on the subject, turn to page 128 for the correct answers.

POSITIVE OR NEGATIVE?

The following statements are either true or false. Look before you leap. (Par for this round—15 correct.)

1. The mass of a planet can best be determined only if the planet has a satellite.
2. In places whose latitude is south, summer comes in approximately the same months as winter does for places whose latitude is north.
3. In some insects, the salivary glands lie in the thorax.
4. All salmon are remarkable for their migration into fresh waters from the sea for the breeding season.
5. Saprophytes are plants which obtain their food from non-living organic matter.
6. On March 21 and September 23 the daylight period is of about equal duration in all latitudes.
7. A saturated vapor is always wet.
8. The white race is more immune to scarlet fever than the black race.
9. When light enters a body of matter, however transparent, part of it is diffusely reflected in all directions.
10. Scurvy can be produced or cured at will.
11. Seasickness is caused by unusual and continuous movements stimulating the muscles of the stomach.
12. Sebaceous glands occur all over the body of man.
13. Nerve fibers leading from the sense organ toward the central system are afferent.
14. Although it is possible to land an airplane without impact, it is rarely accomplished, even by experts, and the usual landing is a stall from three to four feet above the ground.
15. Silicon occurs abundantly in all rocks except limestone.
16. The outer and inner epidermis, the two parts of the skin, develop in the embryo from the ectoderm and mesoderm respectively.
17. The resistance of a conductor carrying alternating and direct currents is the same.
18. Sleet is a small form of hail.
19. All spiders, with the single known exception, the black widow spider, are harmless.
20. The common distinguishing feature of seed plants is the green leaf.

TAKE A LETTER

Here are ten incomplete scientific facts. Three or more suggestions are offered in each case as possible fill-ins for each statement, but in each case only one is correct. So take a letter and try your hand with this alphabet soup. (Par for this circuit—7 correct.)

1. The Shick Test is a test to determine whether individuals are susceptible or immune to: (a) diphtheria, (b) small pox, (c) typhoid, (d) infantile paralysis.
2. Sarcodina are: (a) Cepheid Variable stars, (b) one-celled animals, (c) contagious diseases, (d) sedimentary rock.
3. The brightest star in the Constellation of Scorpius is: (a) Alpha Centauri, (b) Rigel, (c) Antares, (d) Sirius.
4. The metal that forms the most insoluble salts is: (a) gold, (b) copper, (c) nickel, (d) silver.
5. The characteristic color imparted by substances containing sodium to the bunsen flame is (a) red, (b) blue, (c) yellow, (d) green.
6. The inventor of the phonograph was: (a) Thomas A. Edison, (b) Leon Scott, (c) Alexander Graham Bell, (d) Marconi.
7. The number of vertebrae composing the spine is: (a) 33, (b) 153, (c) 1,393, (d) 13,539.
8. Malus' Law deals with: (a) surface temperature of stars, (b) rate of salt deposit in the sea, (c) growth of population, (d) polarized light.

9. One of the following elements has a melting point below zero degrees Centigrade: (a) aluminum, (b) iron, (c) mercury, (d) silver.

10. The Mississippian Period is a geologic period occurring in the: (a) Cenozoic Era, (b) Paleozoic Era, (c) Mesozoic Era, (d) Proterozoic Era.

FROM HERE TO THERE

Hop into your space ship and take a jaunt to each of the astronomical ports mentioned in the left-hand column below. Assume that you leave from Earth for each destination. If so, what would the approximate mileage for each journey be? See if you can associate the mileage stated in the right-hand column with its astro-owner. (Par for this course—7 correct.)

1. Alpha Centauri ( ) 240,000 miles
2. Coma-Virgo Galaxies ( ) 40,000,000 miles
3. Ganymede ( ) 483,000,000 miles
4. Large Megallanic Cloud ( ) 2,800,000,000 miles
5. Mercury ( ) 4.16 light years
6. Moon ( ) 4.3 light years
7. Nebula in Andromeda ( ) 8.6 light years
8. Neptune ( ) 112,000 light years
9. Proxima Centauri ( ) 900,000 light years
10. Sirius ( ) 10,000,000 light years

FOOD FOR THOUGHT

Here's a scrambled scientific omelet, served in 15 courses. Each of the following terms, when its letters are arranged in their proper sequence, spell out the name of some basic food element necessary for body functions. Number 1's a sweet one, huh? (Par for this stretch—11 correct.)

1. ragsu
2. noterip
3. yinerlgc
4. ratshc
5. smeltoa
6. scullloee
7. icesan
8. caselot
9. glacesoat
10. nativmi
11. manbilu
12. bartradechoy
13. curseso
14. sexderto
15. chairsanemoodc

SUNRISE SERENADE

Below are listed six facts relative to the directions of sunrise at various times of the year—with the directions purposely omitted. Can you successfully fill in the 10 missing directions? (Par: 8.)

1. On March 21, in all latitudes less than 90°, the sun rises due ——.
2. Between March 21 and September 23, the sun rises ——— of due ——— at every place on the Earth that has a sunrise.
3. On June 21, the sun rises farther ——— of due ——— than on any other date.
4. On September 23, in all latitudes less than 90°, the sun rises due ———.
5. Between September 23 and March 21, the sun rises ——— of due ——— at every place on the Earth that has a sunrise.
6. On December 23, the sun rises farther ——— of due ——— than on any other date.

WHAT'S YOUR SCIENCE I.Q.?

After you've completed the SCIENCE QUIZ, and checked your results with the correct answers, get a slide-rule and calculate your score. Here's how you rate:

49-61—A *Mental Giant.*
41-48—A Human Encyclopedia.
35-40—B.B. (Bachelor of Bookworms).
30-34—*Try Crossword Puzzles.*
15-29—Stick to Fiction.
0-14—Absolute Zero.

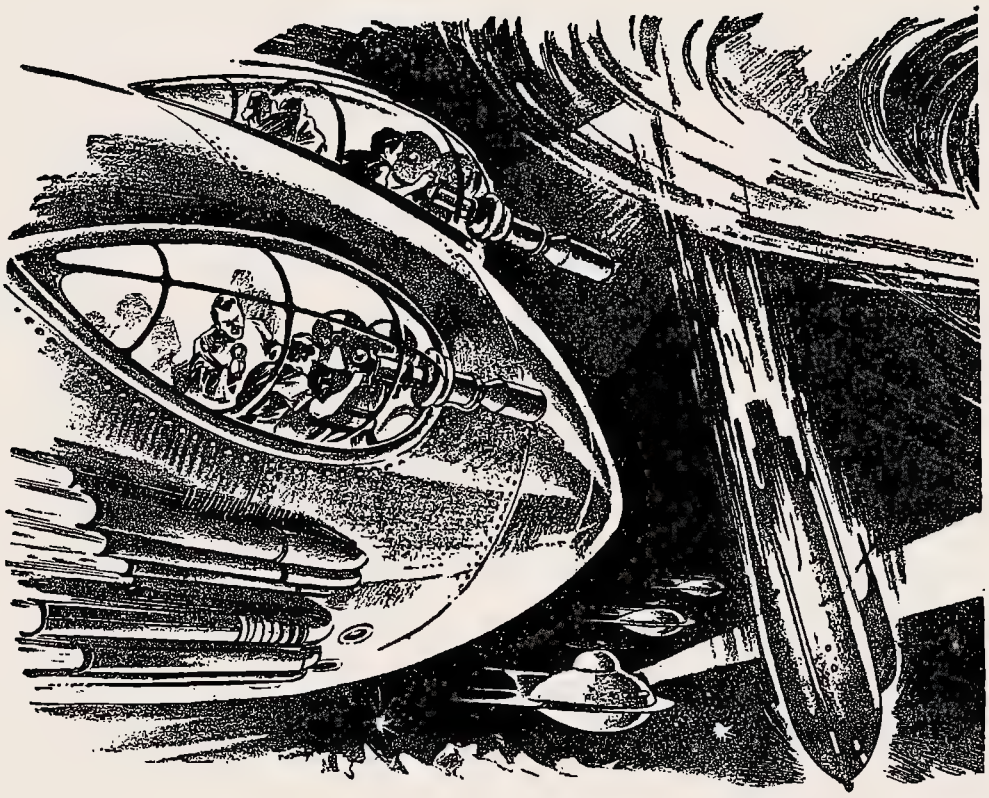
The Further Adventures of Venus
Expedition Number 1 in

VIA PYRAMID

A Story of Planetary Exploration

By GORDON A. GILES

IN NEXT MONTH'S ISSUE



The ship spun madly, jolting, rocking. There were choking,

A Complete Novelet of Tomorrow's Daredevils

SUICIDE

CHAPTER I

Meteor Crack-Up

IT was ironic that I should have been due for a promotion just when the *Caribee* cracked up in space and they broke Jimmy Sloane. After piloting STC crates from Venus to Jupiter for five years and getting two gold bars on my sleeve, I'd been cited for another bar and a master pilot's berth. I deserved it, though.

If you ask in the right places, they'll tell you that Mike Harrigan's log and record were things to brag about. That is, up to the night the *Caribee* was towed into Newark and J. C. Gayley, Director of STC, got the hardest jolt of his crooked career.

STC—that's Space Transport Company, the biggest interplanetary freight and passenger line going. It's called, more or less jokingly, the Jersey West Point; but getting a job with STC is no joke. The company's run like an army. The only difference is that they don't shoot the offenders in their ranks. They only crucify 'em, after an informal court-martial. They crucified Jim Sloane, and that's why J. C. Gayley got his jaw busted.

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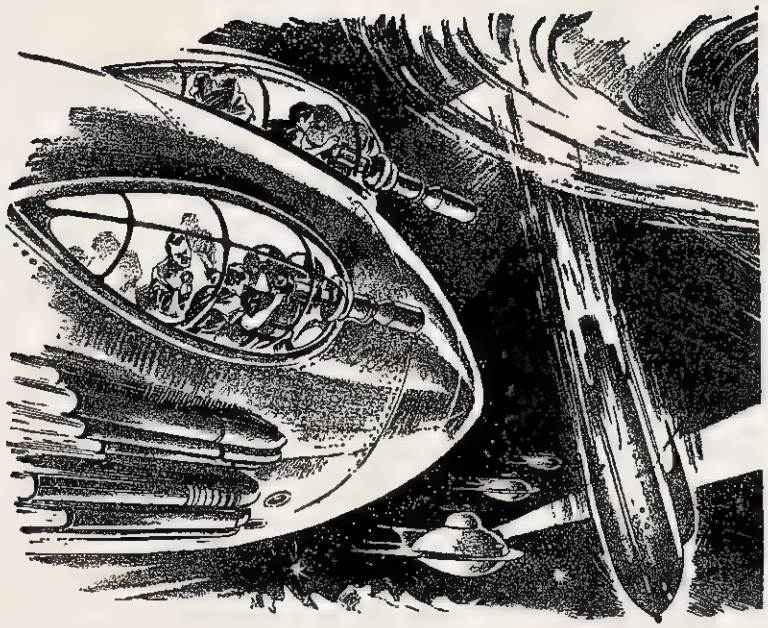
In the Wake of a Meteor Crack-up, the



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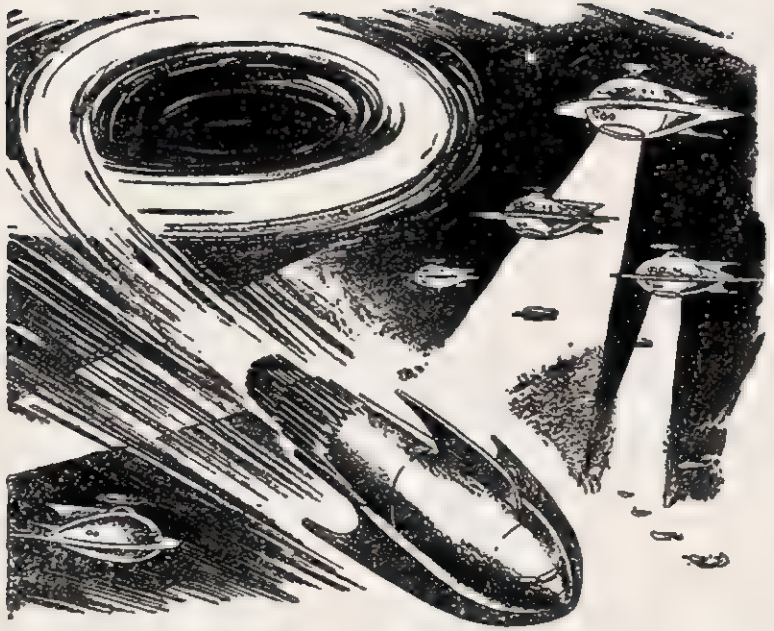

rattling noises amid the grinding and screaming of metal

A Complete Novelet of Tomorrow's Daredevils

SUICIDE SQUAD

By HENRY KUTTNER

Author of "The Star Parade," "Doom World," etc.

In the Wake of a Meteor Crack-up, the Loyalty of Spacemen Is Put to a Test!

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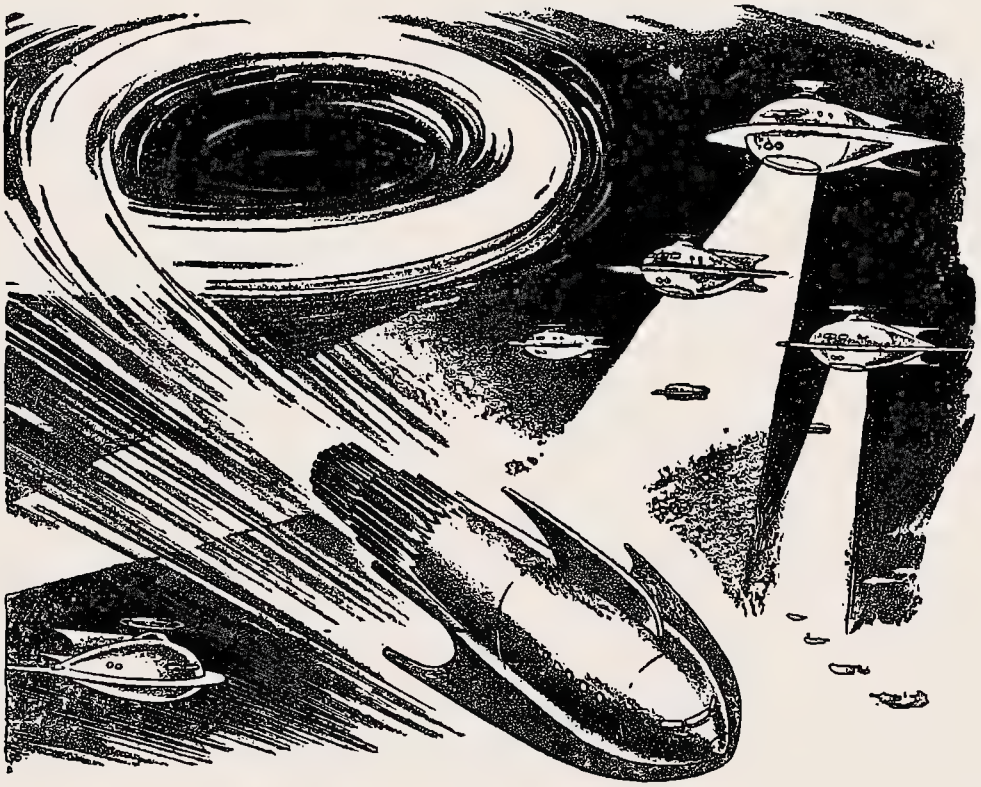
STC blurbs its lines all over the worlds—"Space-travel the Safe Way!"

SAFE! That's a laugh. There haven't been many wrecks in the Transport history, but that isn't because of the company's precautions. Instead of spending a million or two to perfect the rocket-tubes and safety-devices, the big shots decided it was cheaper to tell their pilots, "Bring your ships in safe—or lose your jobs!"

And losing your berth with STC meant sheer unadulterated hell. The company, with steel and oil and radium interests, is a world power. To be blacklisted means virtually becoming a criminal. No job is open to you. I remember one snow-frigid night on Broadway being accosted by a broken down derelict who croaked a hoarse plea for a dime.

I recognized the guy. I'd flown with him in the Earth-Venus war ten years before, and, seeing him now, I remembered that he'd cracked up an STC ship. Over a restaurant table, gorging himself with steak and french fries, he told me something of himself.

"It wasn't my fault, Mike—that business. The tubes back-blasted. They were choked with slag melted off the



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Loyalty of Spacemen Is Put to a Test!

lining. But the *Star* was wrecked and you saw the papers?"

I nodded, eying the man's haggard ruin of a face. He coughed rackingly, gulped coffee, and went on, his faded eyes held an abject plea for belief that made me feel a little sick.

"Not my fault at all—you see that, don't you, Mike? Yeah—well, the papers were full of the story. The company blew my testimony to bits with their experts. When they'd finished the whole world knew my name and my face, and what I'd done. What they *said* I'd done. Killing thirty people—I couldn't get a job. I tried other transport lines first. Then I went down the line. Anything—but it wasn't any good. Maybe—maybe you could stake me, Mike—"

I staked him, and he went to Arizona and died in a few months. And now, three years later, the televisor in my gyroplane was blaring out the name of Jim Sloane, who had run an STC ship into a meteor two hours out from Jersey.

I changed the controls and leaned out, my face chilled by the cold wind at this upper level. Far below the Hudson was a black winding line on which tiny lights moved slowly. Beyond was the blazing jewelcase of New York, listening, like me, to the wrecking of Jim Sloane's career. I lit a cigarette, took a nervous puff, and crushed it out. I was wondering where Andy Sloane was.

Captain Andrew Sloane, STC's ace flyer and highest ranking pilot, was Jim's elder brother. The kid always idolized Andy, and nearly went crazy with delight when he, too, was put on the company's payroll.

Jim had acquired something of his brother's attitude toward STC—a sort of idealism, something I didn't have but that I could respect. And now—well, my stomach felt tied into a knot. I knew what Jim's crack-up would mean to Andy.

Ever since we flew together in the war Andy had built up his brother to me. The kid was going to be a world wonder, according to him. I'd kidded Andy a lot, but he'd only jerk up his chin with a quick, habitual gesture and grin at me, his gray eyes narrowed a little. Up till now—

For when I landed at the spaceport Andy was there, his olive-drab uniform creased and rumpled, lines bracketing his mouth. He was hurrying away from the administration buildings, but halted when I hailed him.

I grabbed his arm. "What about Jimmy? Is he okay?"

Andy's face didn't change, it was stone.

"Safe, yeah. Aren't you flying tonight?" he asked.

"I was," I said. "Listen, what's the lowdown on this?"

"Jim's washed up," Andy's voice was grim. "That's all there is to it." He started to turn, but I held on to him.

"The kid's a good pilot," I said.

"He missed the red signal. A woman was killed tonight, Mike. Her porthole went out."

THIS needs explanation, I guess. Studded over the shell of every spaceship, just under the hull, are Detectors—delicate instruments which instantly react to the approach of any object which has sufficient mass to register.

In space, these are set so that if a body—a meteor, say—comes too close, an automatic circuit is closed and compensating rocket blasts are fired. Thus, if a meteor comes in to starboard, its mass activates a set of starboard Detectors and the rockets go off, shooting the ship safely out of its path.

There's a double check on this: the pilot of the boat sits before a map of the hull, with red lights showing each Detector, and if he sees some of the lights go on and doesn't feel the jolt of the tubes blasting off, it's his job to operate the rockets manually. It takes split-second thinking, but pilots usually have hair-trigger reactions. That's a matter of habit and training.

A meteor had come in at the *Caribee*; the tubes hadn't blasted; and Jim had failed to fire the rockets. As a result, the ship's nose had been crumpled and a passenger had died when her port had cracked open, letting the air escape.

One word from her as she lay in her berth would have brought a safety hel-

met, robot operated, down over her head and sealed but for some reason she didn't say the word. So she died.

Andy told me of this, cold lights deep in his gray eyes, his face strained. I rubbed my chin thoughtfully, mulling over the various angles.

"Where's Jim now?" I said finally.

"I don't know," Andy clipped out, "And I don't care."

"Don't be a damn fool, fella," I said quietly.

He didn't resent my words.

"You know how I feel about the company, Mike," he just said, looking hard at me. "I pulled a lot of wires to get Jim in. Now he's—killed a passenger."

"You haven't heard his side of it yet."

"Yes, I have," Andy told me, and I felt a curious little shock of apprehension. "He admitted it. Said he fell asleep on the job. Up too late the night before, tearing up Broadway."

"Fell asleep?" I repeated. "Jim said that?"

"Yeah." Andy squeezed my shoulder in a grip that made me wince. I could hear his breathing. "Mike, if Jim had been in the right I'd have backed him to the limit. You know that. But this thing—"

He tried to say more, broke off suddenly, and turned to go striding off down the field.

I didn't follow. Instead, I went back to the administration buildings and in past a lot of glass doors and startled secretaries and vice-presidents till I blew into a big room filled with reporters, televisor-men, and officials.

There was only one man I wanted to see—J. C. Gayley, the director—the man who held the administration of STC in his well-manicured hands. He was standing beside his big desk, chewing a cigar, face stern and angry. I liked his frown better than his smile—the frown looked real, anyway.

He turned and saw me. "Harrigan! What's the matter? I'm busy—can't see you now."

"Just wanted to give you notice, Gayley," I said. "I'm quitting."

I saw his eyes flicker to the reporters. "Er—you're under contract, Harrigan. You can't resign. I'll discuss this with you later."

"You won't release me?" I asked.

He waved an impatient hand. "No, no! Don't bother me now. I've enough trouble on my hands with the *Caribee* and Sloane—"

"Trying to think up a good alibi?" I interrupted.

GAYLEY'S plump face turned a mottled yellow. He glared at me.

"That's enough!" he shouted. "Get out!"

"Gayley," I said, "you may be the boss of STC, but you're still a dirty, cheap doublecrosser. And this'll show you I mean it."

I let him have one. My knuckles cracked under the impact, and I felt his jaw give. He went crashing back against the wall, blood spurting from his mouth, knocked out cold as an iceberg. Flashbulbs blazed and popped. Somebody yelled for the police.

And a reporter jumped past me, grabbed the phone, and dialed his copy-desk. He kept looking at me and saying over and over:

"What a story! What a story!"

I didn't bother with the autogyro; it was a rented one anyhow. The taxi-rank was full when I blew out on the boulevard, and I hailed a supercharged, streamlined job.

"Times Square," I said loudly, for the benefit of the loungers who were watching me. But after we'd gone a block I gave the driver another address and told him to take the middle lane on the Skyway. There's no speed limit there, and we whizzed across the bridge and blazed down the Hudson at more than a hundred.

Fifteen minutes later I stepped out of the elevator, hurried along the hall, and went into Jim Sloane's apartment without knocking. The kid was talking to a short, fat little guy with a bald dome and spectacles.

I caught the tail end of a sentence. "—won't take long. I'll board her tonight."

Then Jim looked up, saw me. His lips tightened. He still wore his olive-drab uniform, and his face was pale and strained. He had the same gray, cool eyes as his brother, but Jim's hair was a tousled taffy color, instead of blue-

black. He didn't have Andy's husky build, either, but he was rangy and tough as a greyhound.

"Hi, fella," I said. "Busy?"

Jim looked sidewise at the short guy.

"Fix yourself a drink," he said, jerking his thumb at the sideboard. "Come on in, Mike." He led me into the kitchen.

"Well," I said, "what's the lowdown?"

"You've seen Andy?" he asked. "Yeah, then you got the whole story."

"Fell asleep on the job, eh?"

"Right. Thanks for coming, Mike, but it's—just one of those things." He looked meaningly at the door.

I didn't take the hint. "So you fell asleep," I said. "Jim, you're a cockeyed liar. I knew that when Andy told me about it. You must have put it over swell to make him believe you."

Jim went white. "What the devil are you talking about?"

I lit a cigarette, watching the kid under my lashes.

"You didn't fall asleep. The Detectors went out, didn't they?" I read the answer in his face.

"Yeah. The usual lousy equipment of STC ships. If you'd seen the red lights, you'd have rocketed out of the meteor's orbit, but the danger signals didn't flash, did they?"

"You didn't—"

"I didn't tell Andy—no. I guessed what you were up to. If Andy knew the truth, he'd have raised merry hell, and his career would have eclipsed with yours. It's your business, kid."

"Thanks, Mike," Jim said. "I owe plenty to Andy. More than—well!" He shrugged. "There was Bette, too."

SURE—there was Bette, and a swell girl, at that. Jim and Andy had both fallen for her, but Andy had won out, and they were to be married in a few months. Just another reason why Jim had taken it on the chin without dodging.

"What are you figuring on now?" I said.

He didn't meet my eyes.

"I dunno—"

"Who's the fatty in the other room?"

Jim looked right at me, daring me to raise an objection.

"I'm joining the Suicide Squad," he said.

CHAPTER II

The Suicide Squad

MY stomach jumped up and came down with a thud. Because, right there in front of me, Jimmy Sloane was lifting a loaded revolver to his forehead and squeezing the trigger. He was jumping out a spaceport—running in front of a rocket-pet. In other words, the kid brother of my best friend was telling me, in so many words, that he was going to kill himself.

Nobody ever comes out of the Suicide Squad alive, you see.

I'll explain. 'Way back in the thirties, when Oberth and Goddard were fooling around with rocket fuels, they were making motion pictures and using airplanes in them. And, to give the audience a thrill, the studios hired stunt flyers to perform aerial gymnastics.

Ever so often one of the stunt men would wash up, because airplanes had a habit of hitting the ground unexpectedly—and hard.

The old-style planes, with their rudders, ailerons, and props, went out when practicable rocket fuels were discovered. But the motion pictures went on. Audiences still wanted thrills, and the studios began to use rockets instead of planes in their air and interplanetary stuff.

At first they stuck to models. That had worked well enough with the old-type planes, with montage, double exposures, and stereoscopic effects; but you can't make model rockets convincing. Not with the tremendous drive they've got in their jets. All hell is bottled up in those reinforced liquid-fuel tanks, and you can do things with rockets you never could have done with a plane.

I've seen films that would lift the hair right off your head. Nerve-cracking shots of space-stunting that made me shudder when I thought of the poor devils in the piloting seats. Men are

only flesh and blood—even the desperate, tough babies who are the only ones who'll join the Suicide Squad—the space-stunters. And it's flesh and blood pitted against—

Power!

Brother, you don't know the meaning of the word! The commercial rockets build up acceleration slowly; they have to, or passengers and crew alike would be killed. But the movie ships unleash the tremendous inferno of energy bottled up in their fuel tanks, and the heart-wrenching strain of that super-dynamite can split your eyeballs, collapse your lungs, and pull your insides right through your skin. Power! My God!

I grabbed Jim's shoulders. "You crazy fool," I snapped. "You can't—"

"My business, Mike," he said coldly. "Not yours."

If he got mad I might have handled him. But in the face of that icy determination I knew I was licked. So I grinned crookedly, let him go, and went into the other room. Fatty blinked at me over the rim of a glass.

"Listen, fella," I said. "I hear you need rocket-fodder for the Squad. How's chances?"

"Who did you kill?" he asked.

Before I could answer Jim grabbed me and swung me around.

"Don't try it, Mike," he warned. "I said keep out and I meant it."

I laughed. "I'm doing you no favor," I told him. "I just broke J. C.'s jaw. The Squad'll be a rest cure compared to what'd happen if I stayed on Earth."

And that's how Mike Harrigan joined the Suicide Squad.

A PASSENGER ship took us out to Callisto, passage paid and contracts signed. Not that the contracts meant anything. No court of law would force a man to stay in the Squad if he didn't want to stay. But, somehow, few of the stunters quit. The pay wasn't much, but occasionally there'd be some extremely risky job with a high price tagged on it. There was always some sucker who'd take it on, and usually he got a swell funeral as a reward.

The studios had their space headquarters on a sparsely-settled equatorial island on Callisto. Thaler Island, it was called, after a Dutchman who had cracked up his rocket on it in the old days. Thaler was a roaring border-town, without any law but the studios'. And they didn't give a damn what the men did, as long as they could take up the rockets when a picture had to be canned. Quite a little city!

Jim and I found our passage booked on one of the ocean liners, and it wasn't long before a taxi let us out at the studio offices. I showed a guard our credentials, and we were ushered into a big-chromium room where a bull necked, gray-haired man sat behind a desk, running strips of film through his fingers. He looked like an army sergeant. His blue-jowled face was the color of raw beef.

"Harrigan and Sloane," he said without looking up. "Right. I'll get a man to show you around. My name's Dancey."

He pressed a button and then gave us the full battery of a pair of curiously vivid pale blue eyes.

"You're transport men, I think. Well—just forget that. You won't have any passengers to pamper here. You'll have your jobs, and they've got to be done right. Retakes are too damn expensive. We tell you just what to do, and it's up to you to do it. No excuses. If you get an order to blast off full power from a dead stop, don't tell me it's dangerous. I know it is. Yeah."

The pale eyes watched us keenly.

"You knew what you were getting into before you signed up. If you want to back out now, okay. I won't stop you. If you don't like the idea of seeing your insides splashed around the control room, say so and get the hell out. Well?"

"It sounds swell," I said. "Anyway, my insides are tied down pretty tight."

Jimmy grinned. "I'm staying," he chimed in, "I want to show you shavetails some real stunting."

Dancey grunted, his red face impassive. The door opened and a short, heavy-set man came in briskly. He had a face like a bulldog and his head was bald as an asteroid.

"Teague, some new men," Dancey said. "Take 'em over."

Teague jerked his thumb at us and

we followed him out.

"We're canning that transport crack-up tomorrow, Teague," Dancey called after us. "Line up your pilots for it."

Our guide stopped short.

"Tomorrow!" he said angrily. "We need another week of rehearsal!"

DANCEY made an impatient gesture. "Can't do it. Got to shoot it before we're scooped. Apex is rushing through their space-mutiny flicker, and if they release it first it'll hit our box-office hard."

Teague's jaw jutted out stubbornly.

"It's too risky," he said. "Give me two more days."

Dancey stood up, his hard mouth twisting in a sneer.

"Sure! Take a month while you're at it. I'll send somebody in to serve tea while you play with your charts. Take all the time you want. Then we'll shoot it with models." The pale blue eyes were cold as death. "We're canning that scene tomorrow, Teague. If you don't like it—"

"Okay!" Teague barked. "You'll get your scene—tomorrow. And you'd better order a couple of nice big funerals for the day after!"

There were two factors that were to affect us a great deal during our apprenticeship in the Suicide Squad. One was the nerve-taut tension of the flyers, a carefully-concealed but terrific nervous strain that gave a curiously distinctive look to men's eyes. The other factor was Morgan Daly.

If Teague was the unofficial captain of the Squad, Daly was his lieutenant. The two men were opposite as the poles. We found Teague to be hard-boiled, hot-tempered—and a man we we could like and trust. We never liked Daly; we distrusted him.

He was built like a steer, with the biggest shoulder-span I've ever seen, and, perched atop that great body, an incongruously small head. His eyes, cold and black, had the same strained appearance of the other men's; under high cheekbones there were cadaverous hollows, and his lips, usually retracted in a mirthless smile, showed broken, discolored teeth.

Daly was a victim of space shock and it was slowly breaking him down in body and mind. So far his only symptom, aside from his appearance, was a certain absent-mindedness which would later develop to dangerous proportions.

If Teague had lived, matters would have been different, I think. But he died—washed up out there in space, piloting the big transport liner that he wouldn't let anyone else handle. Daly, actually, was scheduled for the job, but for some reason we didn't know till later Teague shunted him on to a minor job and took his place.

The truth was, Daly was full of his drug—doped to the eyes, his reactions slowed down, his synapses blocked by the poisonous neural inhibitions of the alkaloid.

Teague died. Daly took charge. And from the start a bitter rivalry sprang up between Jimmy and our new captain.

Daly had been in the Squad a long time, as such things go. Once a noted pilot, he still felt that his reputation was tops, and he looked on new recruits as intruders trying to oust him from his job.

Subconsciously he knew that he couldn't last much longer, with his weakened body and brain, and he was determined to hang on as long as he could.

That he did this at the expense of the other men didn't worry him. When a pilot showed too much promise, he'd be assigned to a job that might kill or cripple him, or, worse, cause space-shock—something fifty times worse than shellshock.

I saw the feeling steadily growing between the two men. There wasn't anything I could do about it. Jimmy and I were kept busy learning the business—all strange, all new to me.

Stunting wasn't as I had vaguely thought, a matter of going out into space and piloting haphazard. Every move was planned in advance, as far as possible. There were expert calculators who spent days and weeks over their charts, plotting courses, estimating reaction and recoil, testing with their model Tiling and super-Mirak rockets. Then the pilots' work would begin.

I remember the first time I tried what they called a ground-flight. Daly

took me along a corridor and into a room which was an exact replica of a space-ship's control chamber. It was complete with instruments, guide-panels, vision-screens, and all. Tacked up before the pilot's seat, I saw as I slid into it, was a typewritten sheet of instructions.

"Just follow that," Daly said briefly. "And use your head."

HE waited till I'd scanned the paper, and then shoved over a lever. The screen before me paled and then showed the star-brilliant ebony of space.

"Visual reception isn't so good on a real flight, you know," Daly grunted. "You can't go by the screens alone."

The first instruction said, "Speed 350. Transection 6-14-901. Check for silver ship in tsn. 7-13-880. When it rockets, release starboard tubes 4, 5, 8; stern tubes 9 and 5."

I waited. My instruments checked; a silver craft slid into view on the screen. I saw its rockets jet rosily against the black. I played the switchboard, felt a sickening jar as the room seemed to jerk against the recoil.

"You'll be bandaged up on the flight, of course," Daly said. "And strapped in. Necessary."

Necessary—sure! I'd seen the pilots go out, wrapped and padded until they looked like nothing human, their eyes set and strained; men who knew that such precautions were useless against the terrific shock, the tearing agony and strain, of the mighty rockets. Flesh and blood against pure power—and the dice were loaded.

I followed the typewritten instructions before me, playing the ground-ship delicately among the tangled chess-game of space-craft the vision-screens showed, until there came a time when I realized that one of the vessels was off its course.

I was due to jet past a liner in a few seconds, but, estimating swiftly, I saw that if I attempted it, I would stand a good chance of being crushed between it and the off-course ship. I readjusted the course, sent my ground-ship apparently flashing on the liner's starboard instead of the port side.

I could feel a jolting punch in my middle . . . feel a sick nausea shaking me

A big hand smashed down on mine, crushing it against the guide-panel.

"Can't you read!" Daly snarled. "It says port—*port*, not starboard!"

I pulled my hand away. "Port meant crackup."

"Yeah? Listen, Mister Harrigan, that shot was faked purposely. There was room enough left between the ships for you to squeeze through. That was your course, and—you've got to follow your course! If there's any chance at all of doing it without a crackup, take that chance!

"All the cameras are set up, all of 'em focused, all of 'em grinding. You get out of the picture and it means a

retake. That costs money."

It also means a call-down for Daly, I thought, but I didn't say anything.

"Just remember that, Mister. It may be tough for a transport man to remember, but try and remember it anyway. If there's a chance, take it! And if there isn't—" He looked at me keenly—"then make one!"

CHAPTER III

Space Stunter

So the training went on, at high tension always. Eventually Jimmy and I went out in space and learned the ropes there. It was queer for me, a master pilot, to be going to school again. But I had plenty to learn. I realized that. This was far different from the careful, painstaking handling of transport liners.

I kept thinking of Andy Sloane, and knowing that he could probably master this racket in no time at all. For Andy was a born pilot—like his brother—only Jimmy hadn't the older man's experience as yet. But the kid had a daredevil recklessness that made up for it, and that worried me plenty at times.

He threw himself into the heady excitement of Thaler Island without restraint. He lived as he worked, at high tension, and it wasn't long before I began to notice that hard, strained expression around his eyes. Dancey, the big boss, was beginning to notice the kid. I felt Jimmy was in line for a promotion.

But there was only one better-paying job, and that was Daly's. The big man got surlier, and assigned Jimmy to harder and more dangerous jobs. The kid didn't kick; he came through, but he began to return Daly's dislike with interest. It wasn't long before the two were hating one another poisonously.

Then, one day, we got a fairly routine assignment, a high-speed space drive that called for quick thinking, but wasn't especially dangerous. The calculators—paper crew, we called them—worked it out in detail. Daly was in charge, with Jimmy, me, and two other pilots assigned to the job. We did ground-flights for a week. Then, on the night before the take-off, trouble came.

I was in Jimmy's room, smoking and reading, and the kid was at his desk, his yellow hair rumpled, working out some calculations that had already covered a dozen sheets of paper.

Once I strolled over and glanced at the stuff, but aside from a few sketches having something to do with rocket-release coordination, apparently, I could make nothing of it.

Daly came in without knocking. His black eyes were wide, with distended pupils and a curiously luminous sheen. I noticed his movements were very quick, but he didn't always finish a gesture. He started to shut the door, glanced up, met my gaze, and stood silent, forgetting to complete the motion.

"Hello," I said, "what's up?"

"Nothing." He looked around absently, went over to a bookcase and pulled out a volume. "Something to read."

It wasn't that, I knew. Daly was jittery as the devil.

Jimmy, after a quick glance, had gone back to his work, ignoring the visitor.

Daly opened the book, thumbed through it rapidly. Something fluttered to the floor. A photograph, I saw. He picked it up.

"Well!" he said, and I didn't like his tone. "Quite a girl!"

Jimmy turned around and watched Daly. The latter grinned.

"Friend of yours, Sloane?" he asked.

"Let's have it," the kid said.

But, instead, Daly started to praise the photograph. And he did it in a nasty way—one that made the muscles tighten in my jaw, even though I didn't know who the girl was. But I had a pretty good idea.

It kept on that way for a while, until Jimmy stood up suddenly and tried to take the picture from Daly's hand. There was a brief struggle, and the photograph tore in half. Right then, seeing Jimmy's face, I knew I should have stepped in and stopped it, but I didn't. There wasn't time.

The kid put out his hand and shoved Daly back. Daly grinned unpleasantly and brought around his fist in a wild haymaker. It didn't connect. Jimmy weaved sidewise, and swung a short, vicious jab that crashed against Daly's jaw and sent him back on the couch, knocked out cold.

I stood up, sighing. "More trouble," I said resignedly. "Well, I'd better put him to bed." But Jimmy shoved me aside. He hoisted Daly to his shoulder, gave me a quick one-sided smile, and went out into the corridor. I heard his footsteps retreating and dying.

THE torn halves of the picture still lay on the floor. I picked them up, pieced them together.

Sure—it was Bette. Andy Sloane's fiancée. The girl Jimmy had lost—or had given up. Oh, he'd hidden his real feelings well, but I knew, now, that the kid had sacrificed more than I'd realized when he took the rap on that STC mess.

I put the picture back on the floor and went back to my book. But I couldn't read.

I was afraid. For the kid.

The next morning we took off from Thaler Island. The camera-ships, their positions and courses carefully charted, had preceded us. I felt like a mummy, wrapped in bandages from head to foot, my eyes protected by strong glass shells, my hands coated with a rubbery substance that would protect them against the acceleration and at the same time allow freedom of movement.

As I took my place in the control room of my ship I got a glimpse of Daly on the vision-screen. His eyes were huge pools of shining blackness. There was a blue welt on his jaw.

The fool! Going into space in a condition like that.

. It was none of my business. I jetted the rockets and blasted up in his wake. In half an hour we had reached our goal. The camera-ships hung in space, telephoto lenses visible in their turret tops. I glanced at my instruction sheet. Everything was ready to go. Transection 18 - 85 - 100. Starboard tubes. . . .

As always, I felt an unpleasant little chill as my fingers hovered over the switchboard. Under my hand lay a sleeping titan. A titan that could rip my body apart effortlessly.

Jimmy's face flashed on the screen. He was grinning.

"Happy landing, mug," he said.

I waved a casual hand, though my insides tightened up. "Last man in port buys the drinks," I told him. He nodded, and the screen went blank.

Transection 19-85-157. Check for blue ship.

There is was, gliding across the visiplate. A tube flamed. My fingers moved swiftly.

Blast!

I'd hardened my stomach muscles, but as the ship shot forward I could feel a jolting punch in my middle, feel a sick nausea shaking me. So what? *Transection 21-90-157—port rockets 9, 7, 4. . .*

The dead silence only made it worse. The silent, deadly giants of energy hammered at me, squeezed me, pushed my eyes out of shape till the control room looked like a nightmare. But I'd memorized the instructions, even if I couldn't read them now. My fingers knew the right buttons.

Transection 25-108-156. .

On the vision screen hazy streaks raced. I could feel my heart jumping, hammering, laboring against the grinding strain of the acceleration. It was agony to breathe, to pull air into lungs that wanted to collapse.

Then I saw Daly's ship. He was off his course. He was trailing Jimmy, and at first I couldn't guess why. I swung the vision-screen on him, got a flash of Daly's strained, twitching face—

His brain had cracked. His reactions slowed down by Martian drug, not daring to follow the plotted course, he was trailing Jimmy's ship, following the other man's trail.

I FLICKED on the audiophone to a narrow beat that wouldn't permit listening-in.

"Daly," I said—or, rather, gasped as I struggled to breathe. "Better drop out! You'll—"

"Mind your own damn business," he

yelled. His face flicked off the screen.

Transaction 25-120-157 — starboard rockets 9 and 8.

Quite suddenly I saw the meteor.

It rushed out of blackness, a whirling, jagged spheroid thundering down on us with frightful velocity. We were meeting it head-on. Even in that split-second before I acted I noted the queer silvery radiance of the thing, the sharp contrast of the ebony pits and cracks in it. It wasn't an especially large meteor, but—it was death!

"*Meteor! Blast off!*" I shouted into the audiophone.

I let go with my port rockets. The shock knocked me cold for a second. Then I woke up, found to my surprise that I wasn't dead, though my chest and stomach were throbbing and aching with agony. Nausea shook me. I looked at the vision screen, trying to focus my strained eyes.

I saw Jimmy rocketing aside, safe enough. And Daly, not quick enough to follow suit, kept on going at the meteor. On my vision screen Daly's twisted, contorted face flashed, his mouth open in a soundless scream. The man saw annihilation rushing at him, and he was paralyzed.

I saw him break loose from his stupor, send both fists smashing down on the instrument panel.

His ship blossomed into flame. It fell away and was gone from my range of vision. The meteor drove past, on its eternal journey through space. It had come silently out of the void to bring about a crisis that was later to result in a grim tragedy, and, having kept its tryst, vanished forever from our eyes.

A siren screamed through the audiophone, warning us to hold our courses while the ambulance ship drove down. Presently we were ordered to return to Thaler Island. Shooting was over for the day.

And, later, we learned of Daly's fate. Dancey, the big boss, entered the room where the pilots sat waiting for the verdict, and his pale eyes were narrowed.

"Sloane," he said abruptly, "you're taking charge. We're not sure yet whether Daly will pull through, and in the meantime you take over."

"Okay," the kid said. "How is he?"

Dancey's voice was grim. "Physically he's unharmed. But—" he shrugged—"it's more spaceshock."

He turned and went out. One of the pilots let out a long whistle. None of them liked Daly, but they knew that eventually the man's fate might be their own. As for Daly, he was washed up. He was one of the damned.

A page came in. "Visitor for Sloane and Harrigan," he said. Jimmy and I followed him to an office where a man waited.

IT was Andy Sloane. I noticed a restraint in his manner, the attitude of a man having to do a distasteful job and wanting to get it over quickly. But he gave me the old friendly grin.

"Hello, there! I heard you'd joined, Mike, but—" He hesitated, looked at Jimmy. "How are you, kid?"

"Okay," Jimmy said curtly.

"I've got something to tell you," Andy went on. He stopped me as I turned to the door. "Stick around, Mike. You're in on this. It's about Bette."

Jimmy's lips parted slightly, otherwise he made no sign.

"We're finished," Andy said. His gray eyes were suddenly very hard. "I thought I'd won out, but I guess I haven't. Bette won't marry me. She's in love with you. She knows that now. So I'm—" he grinned wryly. "I'm playing John Alden. Come on back to Earth and I'll see you get jobs somewhere."

"Bette sent you out here?" Jimmy said.

"Yeah. Told me to bring you back to her. So—"

The kid picked up a vase from the table. He gazed at it for a minute, set it down, and faced Andy again.

"No," he said, "I'm not coming back."

Andy didn't get it for a minute.

"She means it—" he started and then stopped.

"That's tough," the kid said softly. "I'm having a good time here. Why should I pull up stakes now?"

"She's in love with you," Andy said. His face was getting hard and angry.

"She'll get over it. I didn't promise

her anything. Marry her yourself—"

I couldn't move quickly enough to prevent it. Andy jumped forward, his eyes blazing, and smashed a vicious blow at Jimmy's face.

The kid went down, but bounded up again immediately, blood trickling from cut lips. He took a step forward, his fists balled.

Then, without a word, he swung around, went out of the room, and I heard his footsteps dying away in the corridor.

"You crazy fool," I said to Andy. "You never could see the nose in front of your face."

"Mind your own business," he growled, breathing harshly.

"I'm making it my business," I said. "There's a few things you're going to find out right now. Sit down!"

I pushed him into a chair, found another for myself, and started in. I told him all I knew. And gradually Andy's face got whiter, and his eyes turned into gray glacial ice. When I'd finished he stood up, an indecision that I had never seen before in his attitude.

"I didn't know," he said heavily. "Where's Jimmy, Mike?"

I rang for a page, found out that the kid had taken off in his cruiser ten minutes before. He hadn't said when he'd be back.

Andy nodded. "Okay. Keep an eye on him, Mike. I'm going back to Earth. I've got a job to do!" His lips were a hard pale line. "And then I'm coming back, with Bette, to get Jim. And when I do come back, his name will be cleared. So will yours."

"What are you going to do?" I asked.

"Bust the STC wide open," he snarled. "Get the low-down on their rotten equipment and get proof. The pilots will back me up. I'm going to Washington, and I'm going to plaster the truth over every scandal sheet on Earth. And I'm going to give Gayley just about the damnedest beating of his life!"

I gripped Andy's hand.

"Give him a couple for me," I said, through a queer tight obstruction in my throat. "Good luck, fella. And—happy landings!"

CHAPTER IV

Spacespin

THE impossible happened. Daly came out of the hospital a human being, not the shattered, ruined wreck we expected. At least he seemed superficially okay; only the hollows in his cheeks were deeper, his eyes were dull and glazed, and his lips twitched continually in a mirthless smile. One of the other pilots gave me his opinion with lifted eyebrows.

"He looks all right. But get him in space, up against trouble, and he'll go to pieces. You can't pull out of space-shock, Harrigan."

By tacit agreement Jimmy remained in charge, temporarily at least. He did all he could to make things easy for Daly, but a dull, burning hatred smouldered within the ex-captain. He blamed Jimmy for his crack-up, though, actually, if Daly had kept to his course he wouldn't have been near the meteor.

Suddenly we got a new assignment. When I read it my stomach tightened up, and I hurried to Jimmy's room. He wasn't there. I found him in Dancey's office, going over some calculations with the big boss.

I threw the instruction-sheet on the desk. Dancey looked at it.

"Well?" he said.

"You crazy fool!" I said to Jimmy. "You're not going to tackle a spacespin!"

He shrugged. "Sure—why not, I—"

"Sloane and I have talked it over completely, Harrigan," Dancey broke in. "There's no—no very great danger. And it'll make a beautiful scene."

"No great danger?" I met his gaze squarely. "Dancey, you know well enough nobody's ever come out of a spacespin alive."

Jimmy got up, gripped my arm. "Hold on, Mike. I've worked this all out. I've allowed for stress and strain and acceleration. There'll be danger, sure, but—" He grinned at me. "There'll be a plenty big kick in it. Jim Sloane, the first guy to come out of a spacespin alive."

He was talking through his hat. I knew it, and he knew it. All the calculations in the world wouldn't help when a man goes into a spacespin. That's the deadliest danger of the spacelanes, because no human being can possibly stand up under the incredible shocks of it.

Not a single shock—no. A series of them, ripping, tearing at your bones and muscles and heart as tube after tube blasts off, sending your ship into an insane maelstrom of whirling fire.

Once in a while there's a leak in the rocket-feed system, and a spark ignites all the tanks at once. Not simultaneously, because that would smash the ship flat with the recoil.

But rocket after rocket jets off, you have no chance to brace yourself against the shocks, and pretty soon there's a hunk of raw meat plastered against the pilot's seat. Your eyes are gone; your brain is full of burst blood-vessels; your heart is paralyzed; your lungs are flattened; you're not even a decent corpse.

You're just meat, that's all.

I ARGUED with Jimmy then, and later, when I'd got him alone. It was no use. He was to go into space that night to make preliminary tests, and the rest of us were to follow in the morning. I put through a call for Andy Sloane on Earth, but knew I couldn't expect an answer until too late.

Jimmy went off without saying goodbye. I spent a sleepless night. In the morning I was up before dawn, drinking black coffee and pacing worriedly about my room.

I turned as a knock came on the door.

"Come in," I said.

It was Andy. He hadn't got my message. He was already on his way to Callisto when I'd sent it. But he came in grinning, eyes dancing with the old joy of battle I'd known when we'd flown and fought together years before.

"It's finished, Mike," he said. "I've broken 'em. STC's washed up. I showed my proofs at Washington and the government cracked down. Gayley's—out!" He glanced down at a raw cut on his knuckle.

Before I could speak he went on. "Your name's cleared, Mike, and Jimmy's, too. I'm taking you both back to Earth with me. Bette's waiting—I told her—"

"The kid's taking a spacespin today," I said.

Andy went chalk-white. He just stared, unable to find words.

"My God!" he finally jerked out.

Then swung back to the door. He tried the handle, then tugged at it viciously.

It was locked.

I tried it myself, to make sure. There was no chance of breaking through that metal panel. I went to the phone, but the sight of cut wires, dangling, told me the instrument was useless.

I was wondering who had locked us in. Not Jimmy. He was out in space, readying for his suicidal act.

It took ten minutes of pounding on the door to bring help, and five minutes more to find a master key. Twenty minutes had passed when we raced onto the spaceport platform and I collared a greasemonkey.

"Where are they?" I snapped. "Not gone yet?"

"Sure," he gasped, wriggling free. "Gosh, what's up? Daly told me he was taking over for you—"

Daly! I cursed viciously.

"I thought it was funny, too, 'cause he was hopped up so he could hardly talk."

"Two racers," I barked. "Quick!"

The speedy racers would hold no more than one man apiece. While we waited I explained the situation to Andy. What was behind Daly's actions we couldn't know, but I knew the dynamite that was packed in the man's drugged, hatred-crazed brain.

We wasted more time while the ships were floated out. Without waiting to don protective bandages I dived into one, Andy into the other. We shot up side by side, then Andy trailed me as I led the way at breakneck speed.

I flicked on the audiophone, tried to get in touch with Jimmy. But reception was bad, especially at this pace. I didn't dare slow down.

I was sweating and gasping for breath when the cluster of camera and stunt-ships loomed up before me, tiny against the vast immensity of space. I saw my own ship, called Andy on the 'phone and pointed it out to him. On the screen I saw his jaw tighten grimly.

"I'll cut around—" he said.

THE rest was lost as his tubes jetted and he curved away from me in an arc that would intersect Daly's craft.

Then another figure came on the screen. It was Jimmy's. He was bandaged from head to foot, a huge, disproportioned monster with triple lenses magnifying his eyes, his face completely hidden otherwise. Only his voice, muffled and thick, told me of his identity.

"Watch the show, Mike," he said. "This is going to be good!"

"Jimmy!" I yelled. "Hold it—"

"Happy landings, fella," he said, and his hand touched a lever and swung it over.

The screen for a moment showed only a starlit space. Then a ship came into view, and a rocket blasted from it. That was the beginning. I saw the vessel jerk, recoil as another tube jetted; then the whole hull seemed to explode in a roaring, raving hell of fire.

I realized that the audiophone was still connected by beam to Jimmy's ship. I heard him grunt, heard his breath go out with a rush; heard him fighting for air. The choking, rattling noises that came to me were almost unheard amid the grinding and screaming of metal. The spacespin was tearing the guts out of the ship, and I gritted my teeth to keep from yelling.

Power—power that would strain solid, toughened steel—blasting with unimaginable force at the flesh and bone of a man!

I heard Andy's voice, hoarse, scarcely human.

"Jimmy!" he cried, "Jimmy!"

And in answer the spaceship sent up a scream of tortured metal. I could no longer hear a sound from Jimmy amid the uproar. I saw a camera-ship flash down, caught a glimpse on the vision screen of Dancey's face, alight with an infernal mixture of delight and horror. The big boss himself had come out to screen this scene.

I could see his lips frame the words, "What a shot! God, what a shot!"

The titans bottled up in the rockets were bursting free and leaping redly to the stars in mad exultation. The ship spun madly, jolting, rocking, a flame of supernal brilliance against eternal night.

Then, quite suddenly, it was over. The rockets died. One tube jetted a last spark; then the ship hung silent and quiescent. My screen went blank, abruptly lit up to show the control room of Jimmy's ship, and a slumped, motionless figure strapped to the pilot's seat. Blood stained the bandages.

"Harrigan!" Dancey's voice called.

And I heard Andy shouting, "Jimmy!"

I couldn't speak; my lips were bitten through and bleeding.

The kid stirred; a bandaged hand groped out vaguely.

"Yeah—I'm okay—" a voice croaked.

The sound of hoarse breathing came.

"The drinks—are on you, Mike!" Jimmy gasped.

I felt a surge of reaction that left me limp and dizzy. Cutting through the haze that surrounded me came a new voice, shrill with hysteria, knife-edged with bitter hatred. Daly's voice!

"Damn you, Sloane!" he screamed. "You're not coming out alive! Not if I can help it!"

The screen was a shifting mirage. I got a glimpse of Daly's contorted face, drug-maddened, eyes red with insanity. I saw his fingers stab at the controls.

I saw Jimmy jerk erect, reach forward—and fall back limply, to hang motionless against the straps.

And, bright against the stars, I saw Daly's cruiser racing straight for the ship where Jimmy lay unconscious!

QUICKER than thought were my actions as I jerked at the controls, blasted my rockets, shot down

toward the killer. But swift as I was, Andy was before me. I saw his lean, silver racer leap past me, and his face appeared on the screen, lips set in a mirthless grin, eyes alight with the old battle lust. I could never have reached Daly in time. No pilot in the system could—but one.

It meant death.

It meant acceleration that would kill a man unprotected by bandages and other safeguards. For a second Andy's stare flickered aside and met mine. I saw him nod a little—and I don't like to remember what happened after that.

He let go all his stern rockets at once. It took split-second calculation, unbelievably perfect piloting. And it took valor, too—the valor of a hero.

I saw Andy's face go. The acceleration smashed down on him; the devil in the rockets took him by the throat and strangled him; it crushed his eyes and left red hollows; it tore his lips to ribbons and clawed the flesh from his cheeks. The rocket titan killed Andy in a pulse-beat, right there before me.

Then there was a white flare; lightnings raved across the screen; and when the beam shifted I saw two shattered hulks drifting in space.

I saw Jimmy's bandaged figure on the screen, and he stirred and tried to sit up.

I heard the warning siren shrieking through the audiophone.

And I heard Dancey's voice, breathless, tight with strain, gasping over and over, "God, what a shot! What a shot!"

Then, later, when I stood by Jimmy's hospital bed in Thaler Island, knowing that his injuries were not fatal, the old tightness came back into my throat as I noticed how much his grin, twisted and painful as it was, resembled Andy's. I hadn't told him about his brother yet. I'd wait a while.

But I told him enough to make a light come into his bloodshot eyes.

"Then we can go home, Mike? Back to—to Earth?"

I nodded. "Back to Earth. And Bette. As soon as you mend a few broken bones."

"And you say Andy fixed it up," the kid said softly. "He—he's a swell guy, Mike. A gentleman and a scholar."

"Yeah," I said, and my voice wasn't quite steady. "A gentleman. A gentleman—and a pilot."

○

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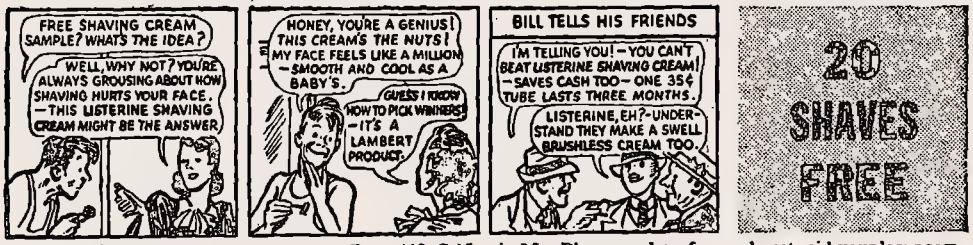
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World's Pharaoh

By KELVIN KENT

Author of "Roman Holiday," etc.

The World of Tomorrow in Ancient Egypt

Pete Manx Annihilates Time and History as He Streamlines the World of Yesterday

PETE MANX had a headache. The headache's name was Dr. Horatio Mayhem. The worthy doctor was driving customers away from Pete's lucrative concession in Funland.

"Shoot till you win!" Pete bawled. "Knock over a milk bottle—it's easy. Prizes for one and all! You can't lose!"

Mayhem's small, scrawny figure bobbed about excitedly.

"A word with you, Mr. Manx. I must have a word with you."

"Shoot till you win!" Pete squalled, and to Mayhem: "Go 'way. You bother me. *Prizes for—*"

Mayhem took out a wallet big enough to choke a politician and began to count out vast quantities of currency. Pete gulped, stared at the money, and beckoned to his shill.

"Take over, Joe. I'll be back. C'mon, Doc." His squat form vaulted the counter; he collected Mayhem and the dough and led the jittery man of medicine to a quiet spot behind the booth. "Now spit it out. What's eating you?"

"I need your help," Mayhem said. "I'm in trouble."

Pete's gaze clung lovingly to the greenbacks. "Yeah?"

"I'll pay you well. Just for a little bit of help. Not much. A—an experiment—"

"Whoa!" Pete said, backing away. "You tried that on me before. Sending me back to Rome in your time machine. Landing me in a circus full of starving lions. Ixnay. Not for me. Not twice."

"It isn't a time machine," Mayhem snapped. "There's no such thing. My device simply sends your consciousness into the central time-hub around which time itself revolves. You didn't travel in time. Your mind merely took possession of the brain and body of a Roman citizen."

Pete laughed bitterly. "Yeah. Me and your pal Professor Aker. I still think it was a dirty trick—sending us both back in time like that."

At mention of Aker's name Mayhem had turned slightly green. He hesitated, licked his lips, and finally said:

"Uh—that's just the trouble, Pete. The professor and I got in a slight—er—argument, and he contended my device was a fake. Claimed it was hypnotic in nature. Ha! I—well—I had occasion to prove my point."

"Oh-oh," Pete whistled. "I bet you sent the prof back to Rome again."

"Not exactly," Mayhem denied, looking worried. "Egypt was his destination."

"A nice place for a vacation. I hear the weather's swell there. Pyramids and stuff, huh?"

"Egypt was a slightly different place under the Pharaohs. A bit—er—savage. The professor is a rather impractical man, I fear. A man of science, true, but he hasn't sense enough to come in out of the rain."

"Does it rain in Egypt?" Pete asked blandly, and, without waiting for an answer, went on: "Your machine works both ways, don't it? Why don't you bring the prof back?"

"I can't" Mayhem moaned. "Time is curved, like space, and I should be able to bring him back. But the device had a breakdown. It'll take weeks to repair. I can still send minds into the past, but I can't bring them back. Not till I've got a certain part that has to come from London, and even then it'll take time. Aker got into all sorts of trouble in Rome, you know. He may be killed before I can get him back from Egypt."

"Well, I won't rat," Pete grunted. "And they can't hand a murder rap on you without a stiff. Cheer up."

"But everybody knows I experimented on Aker. They're asking questions already. Pete, you got along all right in Rome. I want you to go back to Egypt, find Aker, and keep an eye on him till I get the machine fixed."

"Glad to have seen you again," Pete said. "Good-by."

"You won't do it?"

"Do I look like I just got out of the ninny-bin?"

"Ninny-bin?"

"Booby-hatch. Nut-house. Don't you understand English?"

"Yes," Mayhem said with wasted irony. "I understand English. And I'll pay you five thousand dollars to help me out."

PETE shook his head slowly. "I could use that *dinero*. I could go to New York and open a concession at the Fair. Cripes, if it was anything else—but it's suicide. Not for little Pete. Sorry, Doc."

Pete turned away. Then he stopped. Something was digging painfully into the small of his back. He stood perfectly still.

"I didn't think it of you, Doc," he said reproachfully. "Pulling a rod on me. It ain't friendly."

"You," Dr. Mayhem observed, "are going to—er—take a ride with me. The gun will be in my pocket. If you make any outcry I shall shoot you in the most painful spot I can. If you keep quiet, you'll get five thousand dollars eventually."

"It will buy me a swell tombstone," Pete said thoughtfully.

"Shut up," Mayhem requested. "And start walking."

It was not a nice-looking laboratory. Pete wondered why scientists always had a lot of wires and cables and such stuff around. Probably for a front, he decided. As a barker of some years' standing Pete knew the value of a good front.

Right now he sat uncomfortably in a metal chair, straps holding him firmly by wrists and ankles, and wondered when the Doc was going to turn on the juice. Mayhem was doing horrible things to a switchboard in the

corner. Pete shuddered and said wistfully:

"It ain't right. You know it ain't, Doc."

"Shut up."

"I'm a free citizen of the United States of America. I know my rights and you can't—"

"You'll be a citizen of Egypt as soon as this tube warms up. Damn that rheostat."

Not knowing what a rheostat was, Pete did not answer. Finally he burst out:

"Hey Doc! I just remember I can't talk Egyptian."

"You won't have to," Mayhem explained. "I've improved my device since I sent you to Rome. When your mind enters the brain of an Egyptain, it will automatically hook up with the memory center. That's as well as I can explain it to you. I don't quite understand it myself. You'll be able to talk and understand Egyptian, all right."

"It ain't right," Pete said glumly. "You can't get away from that."

Mayhem attacked an insulator. "Now remember what I told you. I can't bring you or Aker back for weeks. It'll be your job to find him and keep him out of trouble till I get my repairs done. All set?"

"No!" Pete cried in a heartfelt manner.

Bang!

Mayhem had pressed a button. Things began to happen with unpleasant promptitude. Pete's inner consciousness suddenly fled from his unprepossessing body and was projected into another time-sector.

ONCE, to his regret, Pete Manx had sampled a curious concoction made chiefly of tequila, vodka, and absinthe. His sensations were rather similar now. Only the elevator was spinning around instead of rising and falling. Then he decided it wasn't an elevator. It was his brain, revolving rapidly inside his throbbing skull. Pete had never heard of centrifugal force, but he was worried about how long his abused brain would be able to hang together.

He opened his eyes and looked at the biggest room he had ever seen. Towering pillars unheld a roof that seemed slightly under a mile high. There was the room. A bearded man sat there, on his head the Uraeus crown of Aegyptus.

Cheops, the Pharaoh, plucked a flea from his whiskers, examined it intently, a throne on a raised dais at one end of and finally disposed of the unhappy creature in no uncertain manner. Then he looked up and said:

"We have little patience with blasphemers. This Theth-Aton must die."

Pete discovered that the room was filled with a multitude of people, both male and female, wearing garments he could not help considering slightly indecent. There was a time and place for all things, including strip-teases. Pete blushed and dropped his pike.

"Brainless offspring of a crocodile," said a gigantic Nubian standing near by. "You're a fine soldier."

"Soldier?" Pete gulped, realizing he was speaking Egyptian.

"One of the Pharaoh's own guard," said the Nubian. "Now pick up your pike and keep quiet or I'll impale you myself."

Pete recovered his weapon and took his place in the line of stolid guardsmen who lined the frescoed walls. He stared at Cheops and at the chained malefactor who stood before the dais, held by two brawny Egyptians.

The malefactor was lean and scrawny as an eel, and a dirty white beard drooped disconsolately over his bare chest. He was tastefully clad in a loin-cloth and a golden earring.

"Blaspheming the gods is a dangerous thing," Pharaoh remarked.

"He made false prophecies," somebody put in. "He said there *were* no gods."

"That's bad," Pete said to himself. "A man ought to learn to keep his mouth shut."

"Well, throw him in a dungeon," Cheops decided. "He shall die at the full of the moon. In some interesting and unusually painful manner."

Then Pete got a shock. The malefactor, Theth-Aton, began to bawl:

"You can't do this to me! I'm not an Egyptian! It's a frame-up—"

Theth-Aton was talking English!

"Professor Aker!" Pete cried, forgetting his caution. "Hey, Prof! Is that you?"

Aker recognized the phraseology, if not the voice, of his former companion in Rome. He whirled.

"Pete! Pete Manx!"

"Oh, for Set's sake," Cheops growled. "What in the name of the sacred ibis is this? Bring that man forward."

Pete was escorted firmly toward the dais. The Pharaoh scrutinized him carefully.

"Who are you?"

"Uh—Puto-Manes is the name," Pete improvised. It didn't sound very Egyptian, but was the best he could do at short notice.

"Do you know this criminal?"

"Sure. He's an old buddy of mine."

Cheops rubbed his nose. "Indeed."

"Yeah. He ain't an Egyptian. He's an American citizen. You see—" Forthwith Pete rashly launched forth into an explanation of Dr. Mayhem's experiment. When he had finished there was a dead silence.

"Mad as a camel," Cheops remarked at last. "We'll see how a little hard work affects you. By rights you should be skinned alive for not falling on your face before the throne. But in view of your evident madness we shall be merciful. Set him to work on the Pyramid. The audience is ended."

Pete was dragged away protesting. Professor Aker was also led off, presumably to a dungeon. Cheops continued investigating the fauna in his beard.

PETE MANX sweated and toiled in the hot African sun. One of a group of two hundred, he was pulling a gigantic block of stone over greased rollers. He panted and puffed wearily, with one eye alert for an overseer.

"Manx on a chain gang," he groaned. "I'll never live it down. Cripes!"

"Put your back into it, Puto-Manes, thou lazy relative of a decayed hippopotamus," said an overseer, flicking a lash painfully on Pete's back.

A tall, sour-faced slave beside Pete, who name, it seemed, was Aha, whispered:

"Keep your face down when you talk. You're new here, aren't you?"

"I've been yanking at that pebble for ninety-seven years," Pete said bitterly.

"What were you before? A Puoni? One of the Red Sea races?"

"A shavetail," Pete said, remembering the Nubian's words in the Pharaoh's throne-room. "And a sucker."

"Your words are strange," Aha murmured. "But *I* was a priest of Ra."

"Ra?"

"Ra."

"You sound like a college punk at a football game," Pete observed, but Aha, not understanding, merely smiled in a friendly fashion. The conversation continued. Pete learned, finally, that Ra was the chief god of Egypt, that Aha had been fired from his job for taking bribes too openly, and that the hierarchy of priests didn't like Cheops.

Peter had an idea. "And you're a priest?"

"I *was*."

"I mean you still got the ear of the main guy? The—well, high priest?"

"If necessary. But he can't and won't help me."

"Well," Pete said, "maybe you can. There's a lot of slaves working on this pyramid, ain't there?"

"Thousands. They are like the sands of the Sahara in number."

"Swell! Now listen—here's my idea. . ."

SOME time later they brought Pete Manx before Cheops again. Pete was distressed and angry.

"Hey, what's the idea of this!" he demanded, rattling his chains. "You said you wanted to talk to me."

"I do," Cheops smiled, "and I will. After that you will die very painfully. Because of you, all my slaves are squatting on the Pyramid and refusing to work."

"It's a sit-down strike," Pete explained. "We want fair hours, better food, and pay."

"What you'll get," said Pharaoh, "is skinning. After that we cut off your eyelids, smear you with honey, and leave you pegged out on an ant-hill. You slaves are getting above your-

selves. You seem to forget that I am a god."

"Okay," Peter said stubbornly. "You're a god. And I'm boss of the Pyramid Union. I'll compromise if you will."

"Take him away and skin him," Cheops ordered. "Then shoot arrows at the slaves till they resume work."

Soldiers seized Pete. His heart sank. Thinking faster than he had ever done before, he wrenched free and cried:

"Hey! Hold on a minute! Gimme a chance. I wasn't trying to stir up trouble. I was just trying to get a word with you, and this was the only way I could do it."

Cheops fingered his beard. "Say your word, then, and begone."

Pete stood silent. His tongue felt dusty. There seemed nothing at all to say. In this crucial moment his wits deserted him. How could he possibly induce Pharaoh to change his mind?

It just couldn't be done. And that meant—the ant-hill. An unpleasant death. Pete felt very sorry for himself. He was too young to die, he thought. Sadly he remembered his concession at Funland, his years spent barking and shilling, the new derby he had bought recently and not yet worn, the concession at the New York Fair that he could never start now. . .

Lightning struck. Pete's jaw dropped. Into his mind a blinding flash of inspiration had penetrated.

"Well?" Cheops asked impatiently.

"I got a proposition to make you," Pete burst out. "Why let the contractors gyp you out of your eye teeth and waste time building a pyramid just for the looks of the thing? What good is it?"

"It is to be my tomb," Pharaoh said. "Skin him."

"Hey, hold on! Why wait till you're dead to be glorified? Why not use the Pyramid as the base for a—a World's Fair in honor of yourself? The biggest celebration that ever hit Egypt or anywhere else. People will come from all over, and the gate'll be tremendous. Build an Aquacade in the Nile—put a Perisphere beside the Pyramid—feature a Little Egypt—a Dude Ranch—all in honor of Cheops!"

"Take him—" Pharaoh began, and then paused. His dark eyes snapped and sparkled. Thoughtfully he fingered his beard.

"Tell me more of this," Cheops said.

WHEN a Pharaoh did anything, he did it in a big way. And Cheops, having fallen hook, line and sinker for Pete's scheme, provided the barker with all the resources of Egypt. It didn't matter that from the Middle Kingdom to the Delta the land was groaning beneath burdensome taxes. Cheops simply slapped on a few more, and, at Pete's suggestion, introduced a sales tax. Grain and wheat took a sharp rise. Property values increased. Shipmasters grinned in their beards and spoke of prosperity being just around the Delta.

"Advertising does it," Pete told Cheops. "You gotta let the world know about this."

Pharaoh gave orders. His armies in foreign lands were provided with huge sheets of papyrus, which they plastered through foreign kingdoms. Messengers and couriers raced about the Mediterranean bearing tidings of Egypt's fair. Cheops proclaimed a year's amnesty. During that year all men might come in peace and view the wonder of the age, the World's Fair.

"What a gate!" Pete chuckled, looking into the future. "You'll clean up. I mean—your treasury will groan beneath golden burdens."

"It had better," Cheops said. "Or I'll skin you regardless. Anyway, it isn't the money so much as the fame. All will realize I am the greatest king since history's dawn."

Pete got the proscribed priest Aha paroled and enlisted his aid. He also tried to pull political wires in favor of the unhappy Professor Aker, but Pharaoh was adamant.

"Our word, once given, is law," he declared. "Theth-Aton must die, as I ordained. I advise you not to speak of it again."

For a while Peter suffered the monarch's displeasure, but by dint of inventing a simple insecticide and applying it to Cheop's beard, he was able to bask once again in the latter's favor.

"The lousy old goat," Pete growled

to Aha in private. "I'd like to have him on the Bowery for ten minutes. He wouldn't last long in Hell's Kitchen."

"You blaspheme," Aha said reprovingly, though not without a sour smile. "However, it is true that the priests don't like the airs Cheops gives himself. Being a god is all right, but it can be carried too far."

Pete snorted. "I'm building a whole World's Fair for him, and what's my rake-off. He lets me live. And if I fall down on the job I'll be skinned alive. What kind of a deal is that?"

Aha considered. "Puto-Manes, I may be able to help you. The priests are powerful here. If you wish to speak with this Theth-Aton, I can, perhaps, arrange it."

As a result of this conversation, Pete was conducted the next night into an underground passageway, through a labyrinth of secret tunnels, and into the dungeon where Theth-Aton was imprisoned. Aha, bearing a torch, stood guard. Pete hastily deposited some food and drink he had brought, and roused the sleeping captive.

Professor Aker was in bad shape. He looked like a skeleton. But he sat up quickly, rattling his chains, and stared at Pete.

"Manx! Thank God you've come. "Get me out—it's been hell here."

Pete was oddly touched.

"Can't do it," he said shortly. "Your chains are riveted on, Prof. Here's a file, though. It'll take time, but keep working."

Aker groaned. Pete sat down in the filthy straw and told him everything that had happened.

"So that's that," he finished. "I'm okay for a while, but I can't get you out of stir. Unless you can help."

"Me help?" Aker asked bitterly. "How?"

"Cripes, you're a scientist," Pete protested. "You ought to be able to figure out something. I can get you anything you want, almost."

"I haven't the materials," Aker said desperately. "I can't make a gun. I can't even make a battery. There's no zinc—not in this barbarous age."

"Can you make poison gas?" Pete suggested.

"Without electricity? It can't be done."

"If you only had electricity—" Pete pondered. He looked up as Aha called softly. "Okay, Aha. What a name!" he confided to Aker. "But he's a right guy. Now you just sit tight and use that file. I'll be back as soon as I can."

"Bring some more food," the Professor said sadly.

"Sure," Pete nodded, and peered closely at the prisoner's beard. "I'll bring some insect-powder, too."

Scratching himself in a distrait manner, he hurried out.

NOT for nothing had Pete studied closely the blurbs on the New York Fair. He knew the exhibits and attractions by heart. And he set to work to bring them to life in Egypt.

Not all were practical. Some were impossible for one reason or another. Gardens on Parade fell flat. Cheops spoke scornfully of flowers. Pete suggested bull-fights instead. Toreadors went into training.

The House of Jewels was another lemon. Pharaoh did not look with favor upon the idea of exhibiting his treasures to the common herd. Moreover, some of the jewels were sacred. The priests had their own treasure, but they said they weren't interested if the king wasn't. It was the amusement center that roused Pete to heights of genius.

After setting the engineers to work on the Perisphere that would rise beside the Pyramid-Trylon and be equipped with a scenic railway track, he returned to the Nile, had the crocodile and hippopotami cleared out, and went to work. There were casualties, of course. The crocodiles saw no reason for leaving their homes. They stuck around and ate the slaves. This distressed Pete so much he took to riding a camel about the fair grounds.

It was impossible to create an Aquacade in the river itself. The supply of swimmers wouldn't have held out, for one thing. Pete had a vast swimming-pool excavated, filled through a canal leading to the Nile, and stationed guards to keep out the crocodiles.

The performers practiced day and night, under the supervision of Aha,

who showed unexpected agility in the water. But presently a herd of hippopotami discovered the pool and it took weeks to drive them out.

Pete re-invented musical instruments. He successfully constructed drums, cymbals, harps, flutes, and even metamorphosed a trumpet into a cornet, but, to his disgust, found himself unable to develop a saxophone. But this was, perhaps, just as well.

Several orchestras came into being. Surprising talent was unearthed. One youth showed signs of developing into a semi-prehistoric Benny Goodman, and his swingy cacaphony started a jitterbug craze that nearly got Pete into trouble with the authorities. Such goings-on were either witchcraft or madness, it was contended, and Egypt would be a laughing-stock.

Pete built a Parachute Jump, using an obelisk for an axis, which was a tremendous success. He tried a Dude Ranch, which closed for lack of business. The Seminole Village, where brawny Egyptians wrestled with crocodiles, attracted children only, for a while. Later word got round that occasionally the moppets were falling in and being devoured by the crocs, and after that Pete had to hang out S. R. O. signs.

He made a Stratoship, which killed a surprising number of people until Pete took the precaution of strapping them in. And he planned a Sun Valley of snow sports, which drew vast crowds. There wasn't any snow, of course, but polished marble ramps took its place, and toboggans, sleds, and skijumpers were risking their necks on it.

But Pete's greatest triumph was in the culinary line. He introduced the hot-dog and the hamburger. Both proved extraordinarily popular. Due to a misconception, a great number of canines were slaughtered at first.

Meanwhile Pete was racking his brains for some way to save Professor Aker. The unhappy scientist's demise was scheduled for the formal opening of the Fair, when a large number of criminals would be killed. It was only by accident that Pete happened to remember something he had read about the Zoological Wonders show and its marine marvels at the New York Fair.

He was immediately inspired to activity. With the aid of Aha he sent forth men on secret errands. When they had returned successful, he went down to Aker's dungeon and interviewed the professor again.

"It might work," Aker said doubtfully, after Pete had explained. "After all, it works at the New York Fair."

"It's got to work," Pete snapped. "Lord knows when Mayhem will get his machine fixed. And if my plan don't go, you're sunk. I can't do it alone, anyway. I'm no scientist. You tell me what to do and I'll do it."

"The priests approve," said Aha, who was also present. "If it succeeds, they will support you both and reinstate me. They will help insofar as possible."

"And we got to hurry," Pete said. "We only got a week."

"Well," Aker pondered, "let's take the throne first. . . ."

THE fair opened with a bang. Incredible throngs came, saw, and were conquered, amazed, and delighted. They wrecked their nervous systems on Pete's hellish amusement devices and did shocking things to their stomachs with his weird foods. They skied and tobogganed and fell off sleds, got friction-burns on the slides, roller-coasted through the Perisphere, gaped at the Aquacade, shagged and trucked and swung to music both sweet and hot, and finally clustered in the huge throne room for the big event—the slaughter of the malefactors.

Despite the size of the great chamber, only a portion of the multitudes could crowd in. Pete was among these. So was Aha, and a sly-looking old fellow who was the high priest of the Sun-god Ra.

"All set?" Pete whispered to Aha.

The other nodded. Here and there about the room priests were distributed, and Aha made a covert signal to them. And now a hidden orchestra played "Ra Save the Pharaoh," and Cheops appeared and took his place on the throne.

The prisoners were dragged in, fully fifty of them, scrawny, miserable wretches who looked ready to welcome death as a relief. Among them was Professor Aker. Pete waved at him.

"Now for the slaughter," Cheops said, with all evidence of satisfaction. "We'll start, I think, with a little dismemberment."

A leather-aproned, half-clad giant approached and dragged one of the shrinking prisoners erect. By some awful chance, it was Professor Aker. The man of science yelled mightily for aid. The giant gagged Aker by the simple expedient of stuffing the prisoner's beard into his mouth.

Pete whistled softly. The high priest took his cue, strode forward, and held up a warning hand.

"Hold!" His great voice bellowed out, filling the throne room. "Hold, Pharaoh! In the name of Ra!"

Cheops' small eyes blinked warily. "Well?"

"I bear a message from the Sun-god. He sayeth this: 'Free the prisoners'."

The Pharaoh remained motionless for a dozen heartbeats.

"It is not the wont of great Ra to speak in matters temporal," he said finally.

"I, high priest of Ra, bear his word. Even Pharaoh must obey."

"Is it so?" Cheops asked with deadly softness. "Now I think you are lying. There are prophecies and prophecies. Some are true. Some are not. Why has not Ra spoken of this before?"

"Do you question the voice of the god?"

For answer Cheops nodded to his guard. The brawny giant took a firm grip on his sword and hoisted Professor Aker erect.

"I call on Ra!" the high priest shouted. "Judge between the Pharaoh and your servant."

Simultaneously a man behind the throne moved swiftly. A leathern cord whipped about Cheops' waist and bound him tightly to the ornate chair. Over the room a hushed stillness fell.

"What blasphemy is this?" Cheops snarled. So swift had been his captor's movement that few had seen Pharaoh fettered. But the leathern thong was pitifully weak — for a keen knife gleamed now in Cheops' hand.

"I call on Ra!" the high priest roared again. And simultaneously the Pharaoh screamed, and the knife fell clattering to the stones.

CHEOPS body arched and strained convulsively. His hands tightened on the arm-rests of the throne. His face was a mask of agony.

"Judge!" the priest shouted, his eyes upturned.

Pharaoh fell back, sweating and choking. In the paralyzed silence his voice fell with icy clarity.

"Slay me this priest!" he thundered.

His last word was lost in a hoarse scream. Once more his body arched against the restraining strap. He wriggled and squirmed like a hooked fish. And he yelled bloody murder.

But the imperial guard was roused now. They rushed forward in a body, pikes raised. Pete's dulcet voice rose.

"Give 'em hell, boys!" Mr. Manx roared.

The priests scattered about the room went into action. They whipped out curiously-shaped contrivances and fitted them over their mouths and nostrils. From small bags they withdrew glittering spheres and smashed them on the floor. Instantly a choking, acrid odor filled the chamber.

Pete, too, had donned a mask. He snatched a pike from a spitting, gasping guardsman and smashed the man over the head with it. Aha, too, was busy, but as he had forgotten his mask, he didn't last very long. In the midst of the mêlée the high priest stood unmoved, his dignity somewhat marred by his gas mask.

Cheops was still screaming shrilly. Pete's smile was maliciously appreciative as he glanced at the throne.

The battle did not last long. The soldiers were speedily render unconscious. Great fans cleared the atmosphere. And the multitude paused in their flight and waited, ready to depart again at the first sign of hostility.

"Extinguish all lights," the high priest bade. This was done. In utter darkness the great voice went rolling on. "Ra, Lord of Egypt, Thou whose dwelling is the life-giving Sun, judge now between Pharaoh and thy servant."

Simultaneously blinding, dazzling light blazed through the room. It came from a globe suspended near the ceiling. It was too bright to look upon, and with a stifled cry practically every-

body in the room fell on their faces.

A roaring, distant voice thundered:

"Pharaoh must obey my priest!"

The high priest turned to Cheops, who lay lax in his throne.

"Will you obey your god?"

Cheops strove to speak. Pete, standing behind the throne, pressed a lever and involuntarily the Pharaoh yelped.

"Yes," he cried hastily. "I'll obey."

"Will you free these prisoners and bow to the rule of Ra's priests?"

"I—yes!"

"Swear it by Ra!"

There was utter silence. Cheops gritted his teeth. He drew a deep breath, and then met Pete's eye. Pharaoh deflated visibly. "Yes," he muttered. "I swear it—by Ra!"

Bang!

PETE MANX opened his eyes and looked at Dr. Mayhem. He was back in the laboratory. Ancient Egypt, Cheops, high priest and Aha—all were gone. Pete clutched his aching head, rose unsteadily, and demanded a drink.

It helped. He steadied himself in his chair and regarded Mayhem closely. The doctor had a black eye.

"Where'd you get the mouse?" Pete demanded. Then, as a thought recurred to him: "Where's the prof? Is he back?"

Mayhem gingerly touched his eye. "Er—yes. Professor Aker arrived back half an hour ago. I started my machine as soon as I'd finished my repairs. What happened?"

"Didn't the prof tell you?"

"No," said Mayhem, again fingering his discolored eye. "He was—ah—somewhat unreasonable. I fear he lost his temper."

"For two cents," said Pete. "I'd lose mine. First, do I get that five grand you promised me?"

"Of course. My check. Here."

Pete sighed. "Well, I can keep my temper for five thousand fish. And as for what happened—"

He explained. Mayhem listened, open-mouthed. And, finally, the doctor burst out with questions.

"Bombs? Gas b o m b s? What—how—"

"Tear gas. Ammonia. The prof told me how."

"But you can't make ammonia gas without electricity—"

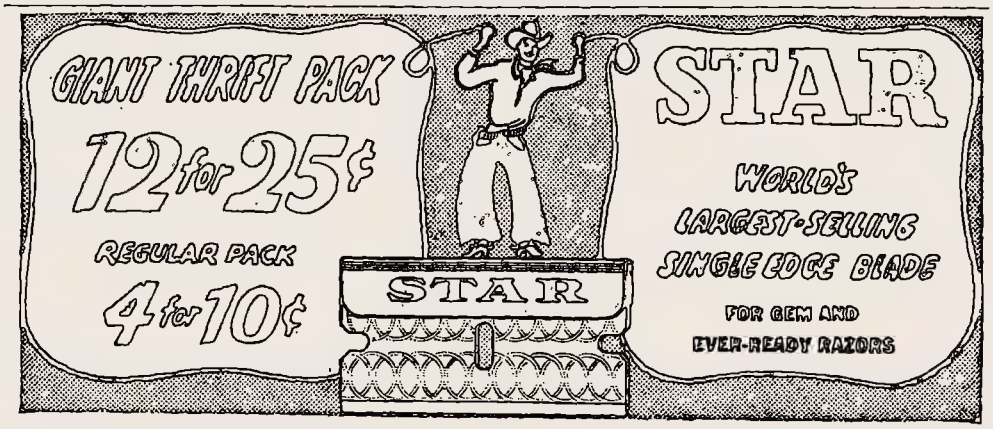
"We had it," Pete grinned. "That's how we lit up the big bulb in the ceiling. And we had Pharaoh's throne wired up, too. A regular hot squat—electric chair to you, Doc."

"But—*how?* There were no facilities in Egypt for the development of current, were there? You couldn't have used static electricity."

"Doc," Pete said, rising, "I am going to use this five grand to start a concession at the New York Fair. Drop in sometime. I'll show you around the dump. There's one show called Zoo—Zoological Wonders you hadn't ought to miss."

Mayhem stared. "Eh? What do you mean?"

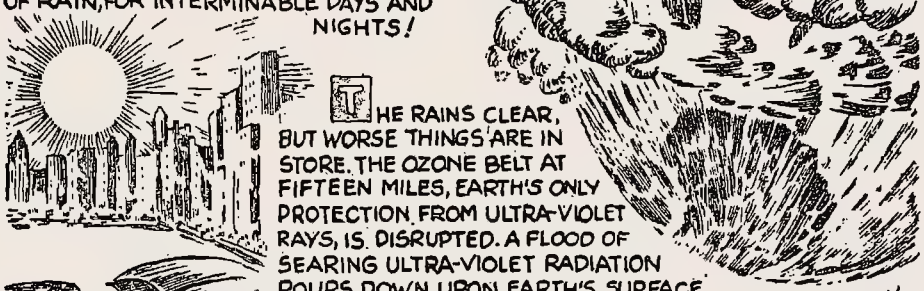
"They got some swell stuff there. Pandas and things. And," said Pete, starting for the door, "they also got an electric eel that gives off enough current to play a radio and run a toy train. If one eel can do that, Doc, two dozen of 'em can do—*pu-lenty!* I had those eels wired for business!"



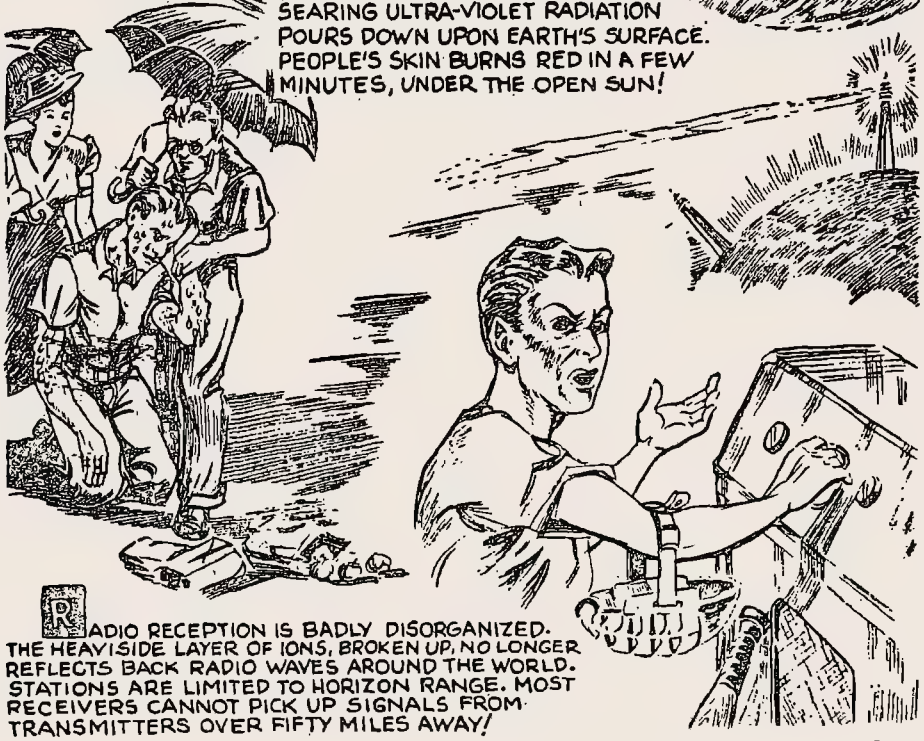
IF A DARK NEBULA ENVELOPED EARTH!

BY JACK BINDER

EARTH'S SURFACE CONDITIONS, BECAUSE OF ATMOSPHERIC CHANGES, MAY BE DIFFERENT IN THE FUTURE. THESE CHANGES MIGHT BE CAUSED BY A NEBULA OF FINE COSMIC PARTICLES DRIFTING THROUGH SPACE, AND MIGHT SERIOUSLY ALTER OUR STABILIZED AIR ENVELOPE. THE FIRST SIGNS ARE A PRECIPITATION OF RAIN, FOR INTERMINABLE DAYS AND NIGHTS!

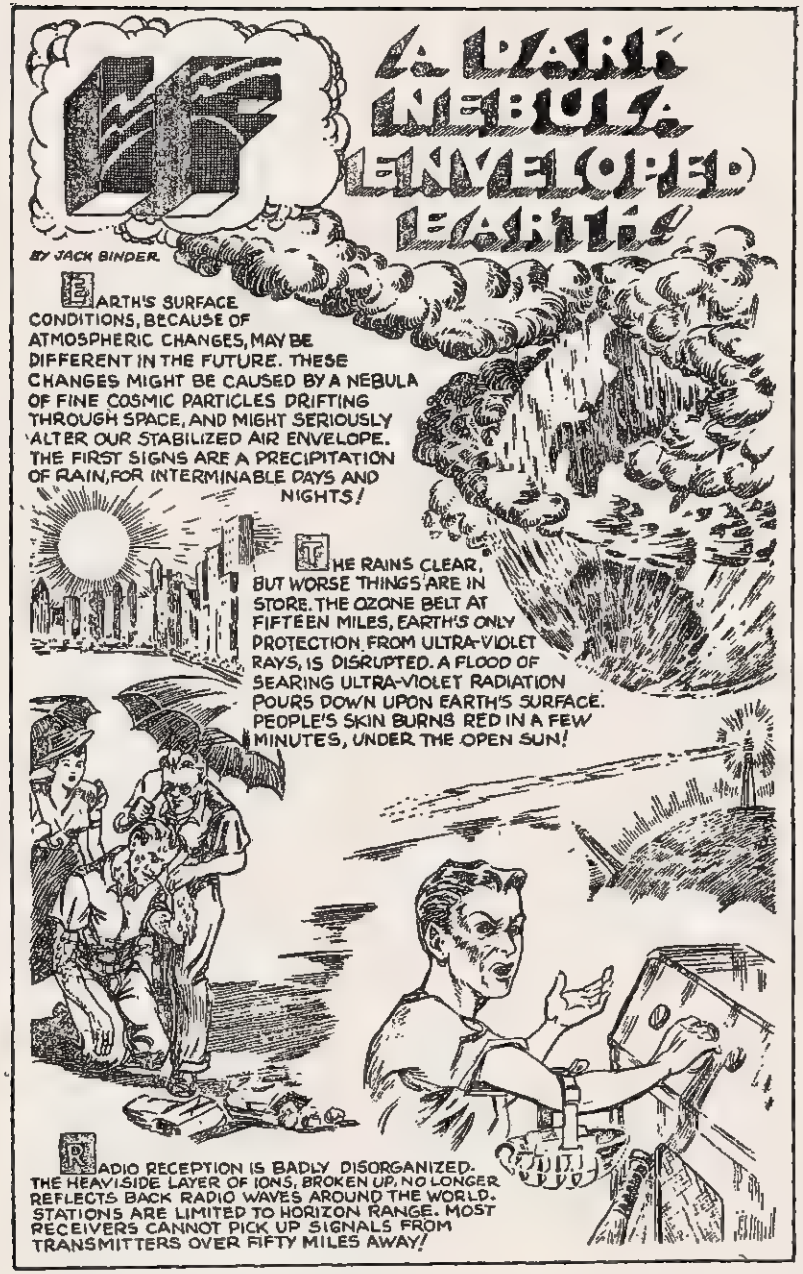


THE RAINS CLEAR, BUT WORSE THINGS ARE IN STORE. THE OZONE BELT AT FIFTEEN MILES, EARTH'S ONLY PROTECTION FROM ULTRA-VIOLET RAYS, IS DISRUPTED. A FLOOD OF SEARING ULTRA-VIOLET RADIATION POURS DOWN UPON EARTH'S SURFACE. PEOPLE'S SKIN BURNS RED IN A FEW MINUTES, UNDER THE OPEN SUN!



RADIO RECEPTION IS BADLY DISORGANIZED. THE HEAVISIDE LAYER OF IONS, BROKEN UP, NO LONGER REFLECTS BACK RADIO WAVES AROUND THE WORLD. STATIONS ARE LIMITED TO HORIZON RANGE. MOST RECEIVERS CANNOT PICK UP SIGNALS FROM TRANSMITTERS OVER FIFTY MILES AWAY!

Next Month: IF SCIENCE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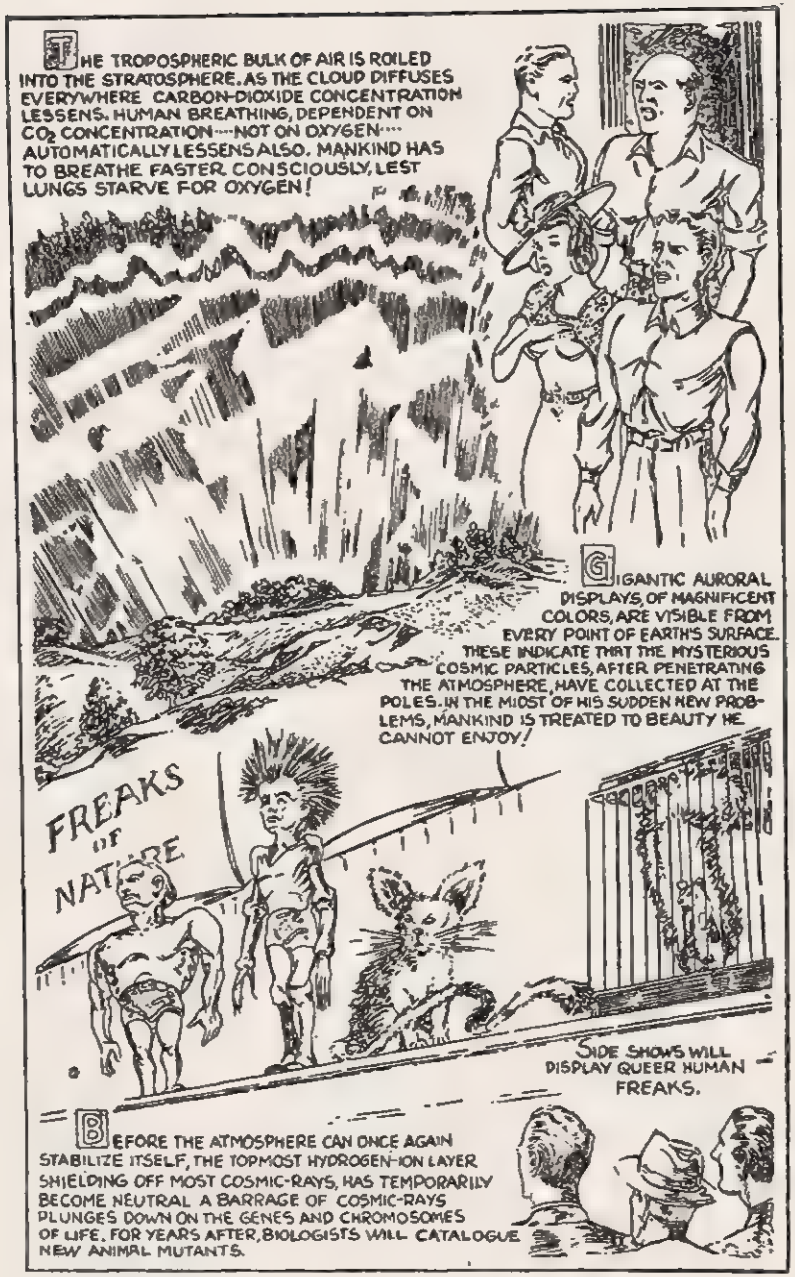
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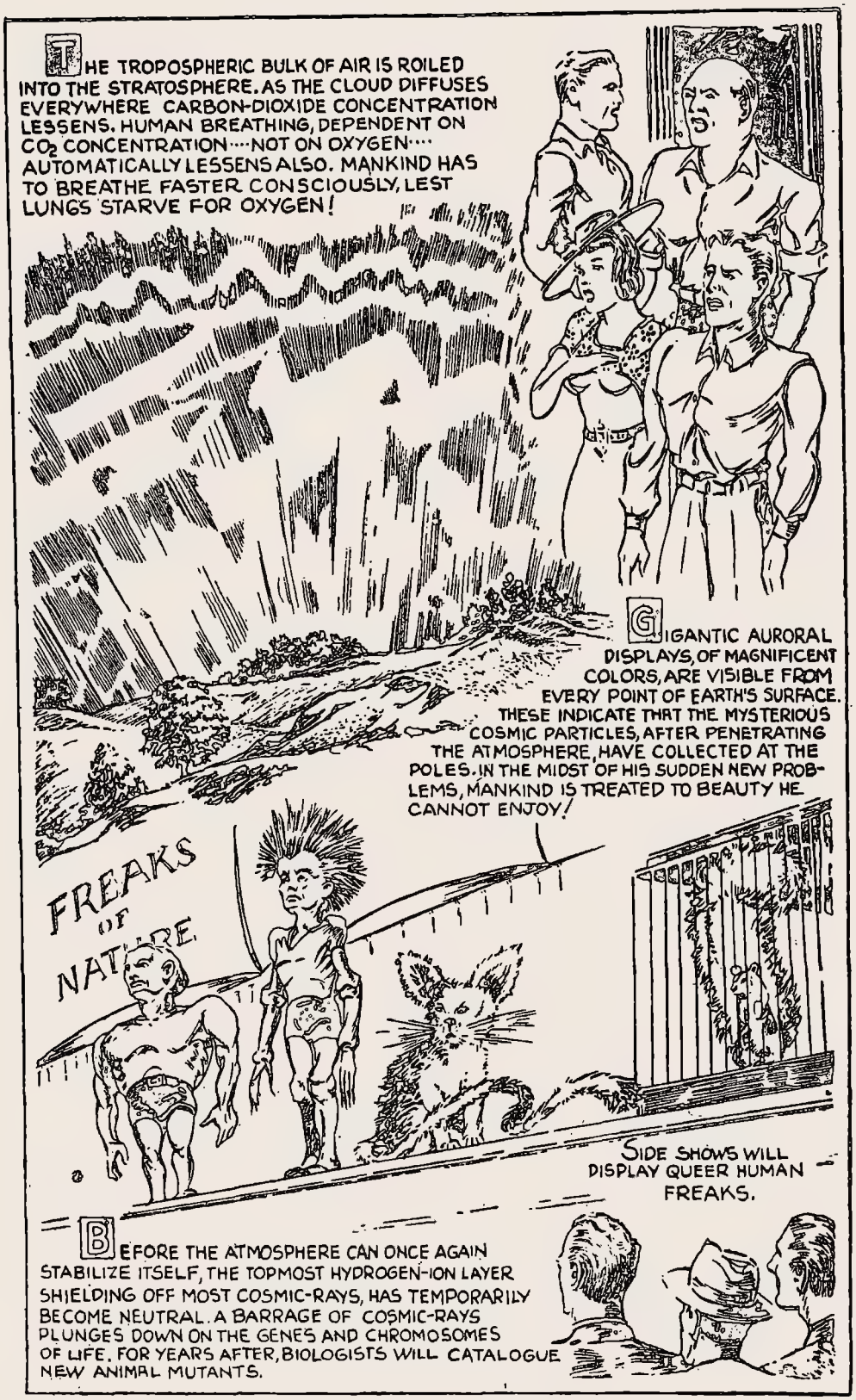
CONQUERED DEATH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CONQUERED DEATH

COUP D'ÉTAT

By OSCAR J. FRIEND

Author of "Robot A-1," "Experiment with Destiny," etc.

The colossal insect vibrated its wings

Professor Grange's Device Projects Double Trouble in Three Dimensions!

JULY, 1939: On board the huge steamship, preparatory to a vacation voyage to Europe, Postmaster-general Farley was being interviewed by reporters.

"Is President Roosevelt going to run for a third term, Mr. Farley?" asked one scribe while sound cameras purred for the screen newsreels.

Mr. Farley smiled inscrutably. "You'll have to ask President Roosevelt that one," he answered. "But whoever runs, the Democratic nominee will be elected."

There was good-natured laughter and applause.

On this same day, some sixty miles up the Hudson River, a group of appointees to the U. S. Military Academy were disembarking from a boat, en route to their initiation to summer camp. They were the usual awkward, slouchy, eager recruits, anxious to become the Messrs. Dumbguard to the hard-boiled second-year cadets.

Among them was a tall, gangling youth of twenty, neither outstanding

nor self-effacing. Cadet George Robert Rice, appointed by a Congressman from Iowa.

"And who would think," commented a spectator, "that one year up here will have those boys marching like one unit across the parade ground in their uniforms of gray and white?"

In New York City a great man lay on his deathbed. Henry Randolph Booth, surrounded by the best medical talent that his wealth and power could command, lay helpless, besieged by that grim and relentless foe who enters unbidden hovel and palace alike, stretching out a bony finger to beckon imperiously, giving a summons that is never ignored nor disobeyed.

The huge chamber was dimly lighted and quiet, the only sounds being the harsh breathing of the dying man. Abruptly the magnate stirred.

"Frank!" he whispered faintly. "Frank! I want my son."

A grave-faced physician quickly felt of his weakening pulse and motioned to the white-clad nurse to administer a hypodermic stimulant. From near the door a man of thirty came forward and approached the bedside.

"Yes, Father," he said in a quiet, resonant voice.

HE was a man well worth looking at twice, this Frank Randolph Booth, only heir to the vast Booth holdings. Tall, broad-shouldered, muscular, with a face of chiseled granite, he was the living image of what the dying man had been forty years ago. The Booth empire was going to be left in capable, if ruthless hands.

The old man reached out feebly, and his son caught his thin, wasted hand in his sinewy, strong grasp.

"Boy," gasped the father, "at last I've met the one enemy I can't whip. But I've lived my full three score and ten. America has been good to me and mine. A gold mine in Nevada, oil holdings in Mexico, landed estates, cattle ranches, and banks. This makes a dangerous heritage, son, for a man not fit to control it. But so long as you live I shall rest easy."

"Thank you, Father," said the younger man, huskily. "I shall carry on as you have taught me."

A faint smile played about the thin lips of the dying man. "One thing more I didn't mention, Frank—the newspapers. You will own and control the greatest chain of publications in the United States. You will be able to mold public opinion, almost dictate what America shall or shall not read. Use this power cautiously, my son. Maintain the freedom of the press, and fight to the bitter end any encroachment upon democracy. I—"

He cried out once, sharply—and Frank Randolph Booth, who had his own ideas about democracy, had come into his inheritance. . .

That same day the Rockefeller Institute endowed Professor Lucian Grange, of Iowa, winner of the Nobel Prize for revolutionary advances in entomology, with fifty thousand dollars to proceed with his development of the honey-bee. In his diary notes, brought to light many years later, Professor Grange had written:

> The boon of this endowment is twofold. Not only can I now devote all my time and effort to the study of the cosmic ray and its effects on *Apis mellifica* and allied genera, but I can divert my own slender resources to the aid of my beloved sister's son, George. I shall at once proceed to establish that experimental apiary on that isolated fruit farm in Pennsylvania. The variety of flora there is most suited to my purpose. Of course, the orchard has been sadly neglected and will require intensive work and replanting. It will take years.

And on that same momentous July day, in Düsseldorf, Germany, a mad young chemist called Karl Ruhlichkeit, an ardent disciple of *der Fuehrer,* was experimenting with the rocket propulsion principle as applied to a bicycle. True, he broke a leg, an accident which left him lame, and severely burned his left arm when the set of rockets on his two-wheeled steed exploded. But his contraption had worked, and he was on the track of a rocket fuel which had a maximum explosive power and yet was comparatively slight of bulk and weight. He was given a scholarship at Heidelberg by special order of the dictator. . . .

A youngish man by the name of Mar-

tin Leiber, a chap with a prodigious capacity for detail work and possessed of a remarkable memory, arrived in Washington from Texas where he was promptly pigeonholed in a corner of the Internal Revenue Department. Here he went to work like a pale-eyed bookworm to digest every scrap of business that even remotely touched his work.

NOVEMBER 6, 1952: The Army and Navy were always playing games. This was in the days when they still remembered the brilliance and blunders of the World War of 1914-18. The entire Pacific region had been fortified from Pearl Harbor to the Aleutian Islands, and the Pacific Fleet had used up thousands of tons of coal and thousands of gallons of oil in working out naval problems against an Asiatic peril that had never materialized.

Operation 20-Z, a set of maneuvers which called for the defense of the Hawaiian Islands and a counter-attack upon a Western fleet, was about to be executed. Everything was in the hands of the commander of the defending forces, and nobody else had perused the new plans. At the critical moment, when the enemy were fairly launched on their attack, the commanding officer was rushed to the hospital with an acute attack of appendicitis. The chief of staff was nearly crazy.

"What the hell can I do?" he groaned. "I don't even know what the commander did with the plans. Rice! Captain Rice!"

A tall, colorless captain saluted.

"Rice," cried the chief of staff, "you are supposed to be good at mathematics. Do you know how to draw up a field order?"

"Yes, sir," replied George Robert Rice.

"Then go ahead and do it."

The umpires of the mock battle operation looked stunned. But, calling a couple of stenographers, Captain Rice proceeded—without asking a single question concerning the unknown Operation 20-Z—to dictate a series of orders which showed complete knowledge of all forces, men, supplies, cavalry, planes, and ships to be worked with.

The commander examined the amazing results and could not even see where to change a period or a comma. The officers involved in the operations were quickly supplied with orders, and the war game went on.

A few days later the convalescent general called a meeting at his bedside.

"Gentlemen," he informed the officers, "I have just finished reading Captain Rice's field orders for a substitution defense for Operation Twenty-Z. As you know, I have fought every war game plan ever sent to us from Washington. I've drawn up a few myself. But this plan of Captain Rice's is the most complete, concise, and effective I have ever seen. I consider George Robert Rice the greatest military genius the United States has produced in a hundred years. His knowledge of modern war equipment and use of aerial weapons is masterly. I predict that he will be the backbone of Army Intelligence within a decade. ."

IN New York, surrounded by an inner circle of friends, Frank Randolph Booth listened over his television screen which filled one end of his luxurious study. They heard and saw election return news from all over the country. Harold Barton, the Labor-Progressive nominee, was overwhelmingly elected as the next President of the United States. His two opponents, Democrat and Republican, had just conceded defeat.

"Victory is sweet," said a pale-eyed man with a prodigious capacity for figures and detail.

Frank Randolph Booth smiled at the speaker.

"It's vindication for you, Leiber, isn't it?" he said. "You had to argue with me to make me see the intrinsic worth of buying up small bankrupt newspapers throughout the country and putting their staffs back into business as local newspaper men while I held control of the central editorial office."

"Yes," answered Leiber, his pale eyes shining. "It has worked. With your expert staff sending out all the

editorial articles to each of these home-owned papers, you can control the very thoughts of the people who vote. The chain of big newspapers you own, Mr. Booth, is of inestimable value, of course, but people will always read their own home-town papers and be influenced by them."

"You have amply proved that, Leiber. Thanks to your editorial genius, we have elected to the presidency a worthy man, but one who was not conceded a chance. Lucky day for me when I discovered you in Washington."

"Thank you, Mr. Booth," said Martin Leiber. "But what is most significant about this victory is that you are practically in a position to choose each President of the United States. If you maintain your present control, enhance it, perhaps you will have become the virtual power behind the political scene."

Booth's eyes widened at the glowing picture conjured up. Under the magic of his encyclopedic assistant's words he was staring at an enchanting vista of the future, dreaming a dream of power. And if they could have read his thoughts, the men around him would have shuddered.

At forty-three, Booth was granite-like and dynamic. He had fleshened a trifle about the waist, but was still the athletic, muscular man who had sat at his dying father's bedside thirteen years previous.

He sighed and turned to include the other members of his close organization in his smile.

"What do you think of it, gentlemen?" he asked.

"Frank Booth for President!" came the hearty chorus, led by Martin Leiber.

Booth's smile grew pensive.

"Perhaps—some day," he murmured. "The time is not yet. ."

There was a slight commotion at the docks at Hamburg, Germany. The newspapers of the world carried varying accounts of the disturbance. Briefly, it concerned the deportation of Dr. Karl Ruhlichkeit, inventor of Rockeit, the perfect rocket ship fuel, which he had just completed.

Of late Dr. Ruhlichkeit had been tinkering with a means of converting Rockeit into a weapon of offense. His theory was that, if he could construct a cylinder strong enough to withstand the terrific heat of expanding, incinerating gases, he could direct a stream of the disintegrating atoms in a ray at a designated enemy and annihilate him.

IT was a good theory, depending on the distance the ray could be thrown. But first, the lame scientist with the withered left arm and piercing black eyes behind thick-lensed glasses —Dr. Ruhlichkeit would have nothing to do with lenses that fitted with direct contact to the eyeball—had to find a metal alloy which would withstand the action of his exploding fuel which was electrically discharged.

It was this stickler which prevented the further development of his rocket ship. He could not make a rocket tube which stood up to the disintegrating inferno of Rockeit blasts. The nearest he had come to it was the beryllium-chrome-steel alloy manufactured for his experiments at the Krupp gun factory. And that metal could stand only a few hours of continuous rocket firing, besides being too heavy for practical use in a rocket ship.

But it was for none of this that Dr. Karl Ruhlichkeit was being banished from his Fatherland. No, indeed! Under the new regime, after the European War of 1950 which made an abattoir of Central Europe, following the collapse of the ugly dictatorship which had been the *Fuehrer* of Germany and the furor of Europe, Dr. Ruhlichkeit had spent less time on politics and more on chemistry and science. But he had managed to spend enough time expressing himself heatedly on governmental policies to find himself being exiled as a dangerous radical.

Shades of Hitler! Could this be only fourteen short years after the heroic purges—a scientist deported because he still believed in a dictatorship? A man with a potential weapon of war being told to depart? But his fuel wasn't any good without a weapon.

November 8, 1954: The wind was a

little sharp as Brigadier-general Rice tooled his Diesel-powered car up the winding back road in northern Pennsylvania. Browns and reds and yellows rioted over hill and dale, colorful scalps dangling at the baldric of Jack Frost.

At thirty-six General Rice was well on his way to becoming a political power. More like a hawk—or an eagle—than ever as he grew older, he now had his headquarters in Washington. The head of the aviation branch of the National defense and the acknowledged head of a progressive democratic bloc, he preached armed preparedness.

Twice a year the general made this trip into the Pennsylvania hills to visit his only relative. He found the Grange apiary much as it had been the previous spring—acres of fruit trees, vineyards, and flowers. The trees were leafless now, but the place had the air of a well kept experimental farm. And in the fenced area to the rear were the enormous beehives which taxed credulity by their size. For Professor Lucian Grange had more than doubled the size of the honey-bee and tripled their production of honey.

"George!" the mild little professor greeted cordially. "How glad I am to see you!"

"Uncle Lucian!" said the soldier warmly. "And how goes things?"

"Fine, fine," said the entomologist enthusiastically. "Let's walk around and I'll show you."

Each trip, General Rice learned more about honey-bees than he thought there was to know. He followed his uncle through the complete laboratory for entomological research, then they went for a tour of inspection of the beehives the size of igloos.

"IN thirteen years, George," said the professor, "I have succeeded in breeding a new type of bee. I am preparing a final brochure for the Rockefeller Foundation this winter. I have worked in secrecy because many things do not always pan out. Take my work with the cosmic ray. I was sure I could produce a super-strain of bees in size and usefulness, but . . . Come back to the laboratory, and I'll show you."

"I notice you blinking a lot, Uncle Lucian," commented the nephew. "I've cautioned you that you would lose your eyesight over this close microscopic work."

"Wait," said the old man, smiling.

In the laboratory he uncovered a four-foot-tall piece of machinery on a table. It looked like a futuristic microscope crossed with a stereopticon. A pair of binocular eyepieces permitted a view into something. Wires, oscillating tubes, rheostats and switches combined to make this hybrid instrument only the more confusing.

"Just what is this contraption, Uncle Lucian?" Rice asked with keen interest.

"Look into the eyepieces," said the entomologist.

He flipped a couple of switches, and a low, steady hum came into being. He rolled the table as though he were pointing the instrument like a telescope out through the rear window.

As his nephew bent to the eyepieces at first the field was blank. Then suddenly he saw!

A huge aviary of skeletal steel covered with heavy wire mesh was before him. The queer, immense cage was set in a foundation of white concrete. In the center was something about the size of a horse. General Rice stiffened in amazement. It was a gigantic bee!

The colossal insect vibrated its wings, and a loud droning buzz filled the army man's ears. Then the creature shot toward him like a bullet. It was all Rice could do to keep from staggering back, so real and close did the terror seem.

Just before crashing into the heavy wire of its cage, the huge insect swept upward sharply along the concave dome of the aviary. The noise of its passing was like that of a radial airplane motor. Its body or wingtip brushed against the cage. The wire mash hummed vibrantly, and the nearest steel girder quivered.

"My God, Uncle Lucian!" gasped the army man. "What and where was that?" He rushed to the window to stare out across the apple orchard.

"That was *Apis Colossus*," said the

professor gravely. "One of my giant bees."

"You mean that thing—as large as a horse—is a bee?"

"Yes."

"But you can't raise bees like that! They're dangerous, Uncle Lucian!"

The entomologist began laughing. "Look up at the ceiling, George."

He flipped another switch on his queer instrument. Instantly a horrible apparition materialized just above their heads. And a terrible droning deafened them. Hovering just under the ceiling, its great faceted eyes glaring at him, its hairy feet moving horribly, the Thing poised above the two men like a flying horse.

"DON'T be alarmed!" Professor Grange shouted as his nephew whipped out a regulation .45 gas pistol. "You can't touch it with that. It's a normal-sized *Apis Melipona*. It's really confined in the field of the instrument. You mentioned my failing eyes. Well, in order to go on with my work, I invented this compound projector microscope. You can either look through the eyepieces, or I can project the object three-dimensionally into the open air above the instrument, using the white background of the ceiling for a screen."

"You mean I didn't even see that first big bee?" General Rice asked.

"Certainly, you saw it—in its little wire cage."

He opened a compartment near the front of the apparatus and removed a cage which contained one of his giant bees the size of Rice's thumb.

"Amazing, Uncle Lucian!" exclaimed the nephew. "This is a greater development than all your work on the honey-bee, and you call it a little invention to permit you to go on with your microscopic work with failing eyes!"

"It is nothing," said the professor modestly. "I can magnify or project a three-dimensional image far greater than this. I can study the most minute anatomy with this Grange Micro-opticon, or project an image a hundred feet tall if I had the screen for a background. A white cloud would do."

General Rice stared hard at his uncle. "I can't see how I can use this in aviational development," he said, "but you've got something worth plenty of money here, Uncle Lucian. Have you applied for patent papers on it?"

"Certainly not! My interest is entomology."

"Well, you're going to protect this at once," Rice said firmly. "It's too big to be careless about. Who knows about it?"

"Nobody knows about it but you. There's no danger in anybody stealing this, the only one in existence, my boy, but if you insist, I'll get a patent on it. But please don't mention it to a soul. I don't want to be annoyed here or interrupted in my work."

"I'll promise only on condition that you draw up a set of plans at once and mail them to Washington."

"I promise," said the professor meekly.

April 11, 1960: It was amazing how Americans got things done. Dr. Karl Ruhlichkeit, his face glowing with enthusiasm, presented himself at the private suite of offices of Frank Randolph Booth, President maker and industrial emperor. He was admitted with small delay.

At fifty-one, Booth was at the zenith of his mental power. Massive, gray of hair, and with eyes that fairly blazed with conscious power.

"Ah, Dr. Ruhlichkeit," he greeted. "And how are you?"

"Excellent, *Herr* Booth," the scientist answered. "I have great news for you."

"Yes? What is it?"

"The rocket ship is complete, as you know, save for the blast tubes. So is the mechanism for the ray guns. But now I am happy to report that the huge sums of money you have spent backing me will be returned a thousandfold. Why I didn't think of that vitreous plastic before, *dumkopf* that I am, I do not know."

"Get to the point, man," said Booth impatiently. "What is it?"

"That new plastic compound of rubber and glass," cried the German. "Rockeit does not need heavy firing tubes—it is not like the shooting of metal projectiles. All it needed, ever,

was a casing that would withstand the disintegrating effect of the atomic blasts. And we have found it, *Herr* Booth. If you will take these blueprints and order the casting of the rocket tubes at once—and the ray projector tubes—I shall have the great honor of presenting you with the greatest war machine man has yet known. A rocket ship with disintegrator ray guns!"

BOOTH stabbed at a button on his desk and flipped a toggle switch on a compact little case. A scene came to life in the circular mirror in the front of the case—a man secretary at a desk in another office.

"Yes, Mr. Booth?" He spoke in a voice so natural that he seemed to be in this private office.

"Get Mr. Leiber at once," said Booth.

In a moment the office door opened, and Martin Leiber entered, a little paler, a little more stooped, a little grayer.

"The doctor has completed his rocket tube experiments," the great man said to him.

"At last, we will be able to prevent war."

"So?" said Leiber dryly. "That's what Nobel thought when he invented T.N.T. That's what the Wright brothers thought the airplane would do. That's what the submarine was supposed to do."

"Humph!" Booth cleared his throat. "This has been kept in the greatest secrecy, has it not?"

"Of course, sir," said Leiber.

"See that those specifications get to our vitreous plant in Pennsylvania at once. And, Leiber, you can release all your editorial guns in the papers. I shall run for the Presidency, and this rocket ship of Dr. Ruhlichkeit's will be my gift to the Government. . . ."

In Washington, the chief of Military Intelligence, and head of the army bloc which solidly opposed anything that led away from the true concepts of democracy, General George Robert Rice, leaned back in his chair. Still lean and almost awkward, Rice was a far cry from the gangling youth who had entered West Point twenty-one years previous. His jaw was truculent, his manner crisp and decisive, but there was a quizzical twinkle in his gray eyes. He was studying the face of the colonel before him, the Government's chief aeronautical engineer.

"So the new plastic stratosphere combat planes will be ready for service this fall?" he asked.

"Yes, sir," replied the colonel. "That will place America in the lead of all world powers in aviation. And, General, if I may say so, this country owes it all to you!"

"Fiddlesticks, Carter!" snorted the general. "The government owes the thanks to my uncle, Professor Lucian Grange, for helping me get an education and then supporting me while I was a green lieutenant who needed more money for books and instruments than army pay could furnish."

"You mean the old gentleman who has spent years increasing the yield of the honeybee?" asked Colonel Carter, smiling.

"That's the man." The general nodded and glanced down at the dispatch. "A message from New York Intelligence," he exclaimed. "Frank Randolph Booth has announced his candidacy for President."

"Well, he will make a great President."

"I hope," said General Rice reflectively.

JULY 4, 1961: Martin Leiber sat alone with his lord and master. No longer did Frank Randolph Booth frequent his luxurious offices in New York City. He was President of the United States—an imposing figure of a man. Leiber, the walking encyclopedia, looked insignificant beside him.

"Well?" asked Booth softly. "This being Independence Day, I shall be very busy. What?"

"Ruhlichkeit's rocket ship has had a secret trail flight," reported the head of the editorial department of the Booth newspapers. "It functions perfectly. It is a terrible weapon."

"We shall need it. And?"

"I'm afraid, we can't overthrow this Government," admitted Leiber frankly, trembling slightly. "I—"

"Who said anything about overthrowing the government?" asked Booth harshly. "I don't want to endanger four billion dollars in personal holdings. I like the Government well enough, but I don't want to have to be reelected—ever again. This will be a simple coup d'état."

"Simple!" Leiber laughed curtly. "Make one move to become a dictator, and you'll have General Rice, the whole army and half the citizenry on your neck. That man is cracked on democracy. And you can't win or hold control without the army, in spite of your wealth and power and newspapers."

"If General Rice were out of the way, it would be easy sailing," said Booth softly. "So General Rice will be—eliminated. Two weeks hence there are to be aerial maneuvers with the new stratosphere planes, demonstrating the defense of New York City against aerial attack. I am to review the show from the Empire State Building tower. Rice will be leading the squadron of new plastic planes. So we shall give him something to attack, something that will make him rush madly to the defense of the President of the United States."

"I don't understand," puzzled Leiber.

"Suppose something terrible were apparently to attack the presidential party—like a colossal insect, for example. What would Rice do?"

"Rush to protect you, of course," said Leiber.

"Exactly. . . . You've kept close check on that micro-projector of Professor Lucian Grange?"

"Yes, sir, and I've looked further into it since we came to Washington. That's a slick machine the old boy perfected to study his bugs under magnification—if the plans tell anything, though he is a little cracked on secrecy."

"And that machine will surprise you even more than you think," said Booth with a thin smile. "I've seen it. And I've helped the professor keep it quiet. Now is the time to use it. I want you to go up to his farm in Pennsylvania and learn how to operate that machine. Then, after Grange explains it to you, get rid of the old man and take the machine to New York. Understand?"

"I'm not sure that I do—exactly," said Leiber hesitantly.

"Take a couple of men you can trust and get that machine, then silence Grange. You do understand—exactly. Install that projector in the tower of the Empire State Building the day before the maneuvers. And don't forget to have a few of the most wicked-looking of the professor's bees with you."

BOOTH went on tersely, ignoring Leiber who plainly was shaken by the cold-blooded order.

"Just as the aerial show is about to begin we will project a three-dimensional figure of a gigantic bee into the air above the tower. General Rice will come to the rescue. Dr. Ruhlichkeit and his rocket ship will arrive to ray the huge insect out of existence. And Dr. Ruhlichkeit's aim with his new ray guns will be—unfortunate. He will destroy the fancied bee, because we will shut off the projector, but he will accidentally—and unfortunately—wipe out General Rice's air squadron at the same time, and our only formidable opposition will have been removed. I will take over the complete reins of the Government."

Leiber's face was white as a sheet

"The rocket ship," he said accusingly. "You never intended giving it to the Government?"

"Certainly not," Booth coolly admitted. "I shall need it to make my rule absolute."

"Ruhlichkeit?" asked Leiber in a hoarse voice. "Can you trust him?"

"I own him, body and soul, and he firmly believes in the supreme destiny of a dictatorship. Don't you think I've watched him ever since he was kicked out of New Germany?"

"You are mad—mad!" whispered Leiber.

"Not nearly as mad as I'll be if you fail me," Booth warned grimly.

Yes, it was the Fourth of July, 1961. A fine conference behind the doors of the White House on the anniversary of the Declaration of Independence.

July 15, 1961: En route to New York City by motor, General George R. Rice authorized his staff to proceed without

him, and ordered his orderly to drive into the Pennsylvania mountains after leaving Philadelphia. He was going by to see Professor Lucian Grange on his way to the war games. Perhaps he would take the old entomologist along.

But General Rice never took Professor Grange anywhere again—ever. When he reached the experimental farm the front door of the house was standing wide open. The only sound was the heavy droning of the professor's large honey-bees. A queer foreboding clutching at his heart, General Rice hastened inside calling as he went.

There was no answer. And when he reached the laboratory he saw why. The place was a shambles. The professor lay stretched out on the floor in a pool of blood. He had been shot to pieces. But he was not quite dead.

With a cry that brought the two soldiers running from his car, the general dropped to his knees beside the bloodied form of his uncle. The whiskey procured by the orderly served to rouse the old entomologist.

"George?" he whispered unbelievingly. "Is that you, George?"

"Yes, Uncle Lucian," said the general. "Just tell me who did this."

"It—it's a terrible plan to seize the Government, George," the old man whispered. "Martin Leiber admitted the whole thing to me."

"Martin Leiber?" repeated Rice. "The President's confidential secretary and adviser?"

"Yes. He told me everything after he stole my projector-microscope. They mean to kill you to get you out of the way. Here is how he means to do—"

And then, suddenly, General Rice's uncle was gone. And he did not know just how Booth meant to get rid of him.

JULY, 17, 1961: It was a gala day in New York City. Fifth Avenue, Sixth Avenue, and cross streets were packed and jammed. In the tower of the Empire State Building the President of the United States and his party had grandstand seats for the aerial show. All of his traitorous sycophants were with him. Up in the tower itself Martin Leiber worked at a huge four-foot machine which he had had installed the night previous.

Dirigibles and droning aircraft of military value circled the metropolitan area. But the greatest attention was focused on those tiny specks of glittering plastic far up the sky to the east. General Rice and his squadron of stratosphere planes were swinging into action.

At Fifth Avenue and Forty-second Street the overworked traffic officer blew his whistle irately at a runner of a red light. "Are you color-blind, pal?" he demanded.

"Look!" yelled the occupant of the car, grabbing the officer's arm.

The bluecoat glanced upward, and his florid face drained white.

"Holy Mother!" he gurgled.

All around confusion and terror mounted. Screams rose into the air. For high above the tower of the Empire State Building, against a white background of clouds, was a dragon from a nightmare. An immense insect loomed and hovered there where nothing but sky had been a moment before.

Above the rising roar of the crowds in the streets could be heard the shouts of the guards on the tower. Members of the President's party and secret service men were lining the parapet of the stately building's tower and firing rifles, revolvers, and submachine-guns up at the horrible monstrosity. The faint *pop-pop* of their guns was lost in the tremendous droning of the colossal insect's wings.

Off to the east, high above the city, came the droning song of the new stratosphere planes, swooping down fearlessly upon this awful enemy, this unbelievable thing that threatened mankind and civilization, beginning with the President of the country. As if it had malign intelligence.

And then from the west, out of New Jersey, sounded the thunder of another new and shining aircraft.

"A rocket ship!" yelled a man among panic-stricken spectators. "With ray guns! That wasn't in the papers!"

The rocket ship spiraled gracefully over the city and dropped low above the neighboring buildings. Then, just

as the first of the stratosphere planes swooped down, several palely glowing rays, like beacon lights against a fog, shot out from the rocket ship upward. The rays passed through the enormous insect, carefully missing the tower itself, but striking fully on the foremost of the oncoming planes.

There was a flash—another—a cloud of smoke, and tiny fragments of airplanes, mysteriously melted, rained earthward. The huge insect disappeared suddenly and completely, and women in the streets began sobbing.

A tall, colorless man in the uniform of a general of the aviation branch of National defense, bowed his head over a field telephone outfit and groaned.

"Then it is all true," he muttered.

"Repeat that, please, General," a voice crackled in his earphones.

"Send Plane Three to defense of the tower," he said in the tone of voice a criminal judge might have used.

UP in the air a third stratosphere plane, a commander's ship by its markings, dived between the tower and the rocket ship. A pale green ray of light licked hungrily out from the tube-like rocket ship. All three were close together—the tower, the new stratosphere plane, and the flexible rocket ship with Dr. Ruhlichkeit beside the pilot.

Then it happened so quickly that the hundreds of thousands of spectators were never able to explain it accurately. The pale ray of light played on the stratosphere plane, melting it into nothingness. There was a terrific explosive flare outward from the melting plane, and a sound like a clap of cosmic thunder. Plane, rocket ship and the tower of the Empire State Building disintegrated, burst into flames and came crumbling down in fragments of fire upon the terraced offsets of the mighty building.

Had it not been for the modern style of recessed architecture of the surrounding buildings which permitted their roofs to catch most of the flaming debris, thousands of persons would have met their death that horrible morning. But they did not. Only the Presidential party on the tower and the occupants of the mysterious rocket ship met their doom.

And over a field desk fitted in the tonneau of his automobile, General George Robert Rice sat and wept.

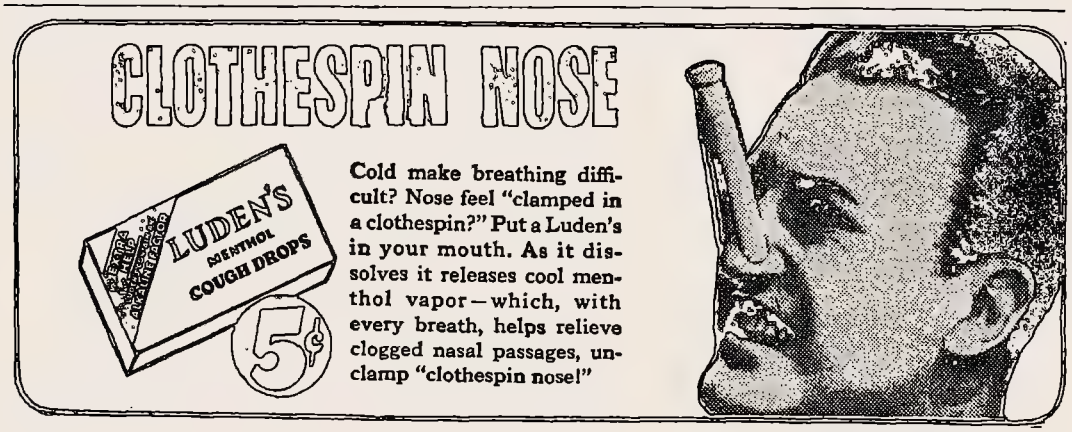
"Coup d'état," he kept whispering. And then at last: "Yes, a coup de grâce."

"But General Rice," cried his shaken orderly. "Just what happened?"

"You were with me at Professor Grange's laboratory," answered the general after a moment. "You heard me make subsequent arrangements to have the first three stratosphere planes sent out without pilots, under radio control."

"Yes, sir," said the white-faced young man. "But—but what made that third plane explode like that? And who—"

"I can't answer any of your questions, Orderly," said General Rice tersely. "But I've heard that a thousand pounds of T.N.T. will do a terrific lot of damage if it is exploded—by accident."


CLOTHESPIN NOSE
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COUGH DROPS
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Cold make breathing difficult? Nose feel "clamped in a clothespin?" Put a Luden's in your mouth. As it dissolves it releases cool menthol vapor—which, with every breath, helps relieve clogged nasal passages, unclamp "clothespin nose!"

A SPECIAL FEATURE OF INTERESTING ODDITIES
By J. B. WALTER

THE NON-MAGNETIC SHIP

THE British Admirality is building a ship, the *Research*, that will be entirely free of magnetism!

The reason for the construction of this non-magnetic vessel is that it will further the study of terrestrial magnetism. Only the essential parts of dynamos and Diesel engines are of steel. Copper is used extensively, with teak the principal item among the materials of construction.

The bathtubs on the boat are of enameled teak; the cooking stoves of bronze; pots and pans of aluminum. Penknives, watches with steel springs, etc., are not allowed among the personal effects of its crew and officers. And the entire crew will have to let their beards grow, for steel razor blades are taboo!

MILLIONS FOR DEFENSE

OVER 14,000,000 combinations of glandular activity may occur in the human body!

These combinations refer only to the functionings of the glands of internal secretion, known as the endocrine glands. These are the vital ones that manufacture the hormones, necessary for the body's important activities.

There are 13 of these glands: pituitary, thyroid, parathyroids, adrenal, etc. Each of these thirteen glands produces at least 15 different hormones. For each hormone there is the possibility of a normal amount being produced, a less than normal, or a greater than normal quantity. This allows three conditions for one hormone alone. But the glands and hormones act together, are closely inter-related, and various combinations are possible, resulting in different effects on the individual.

So it has been calculated that with the 15 hormones of the body, each with triple duty possible, the possible combinations with the thirteen glands may reach the figure of 14,348,907.

NO MORE WORRY

SCIENCE can eliminate worry from the human mind!

It's been done already. Worry has been chiseled from the minds of 48 men and women by a surgeon's knife which severed connections between the important frontal lobes and other parts of the brain.

So reports Dr. Walter Freeman, of

George Washington University. The operation, he says, greatly reduces the functioning of that part of the brain contained in the forehead, an area which physiologists believe essential to abstract thinking.

The brain-severing operation has been performed on patients afflicted with excessive anxiety or self-depression. They suffered from hallucinations, imaginary voices, etc. This operation reduced these fears. For the frontal lobe of the brain governs your foresight, ability to plan, look into the future.

The operation has its flaws, though. It weakens ambition, self-criticism, and the ability to foresee what lies ahead. And that's Dr. Freeman's biggest worry!

THE TON TELLER

WHALES can now be "weighed" without being taken out of the water!

They don't even have to be harpooned. All you need know is their length. That, multiplied by itself a certain number of times, and the result multiplied by a constant, gives the weight, according to a mathematical formula worked out by Dr. Leonard P. Schultz, curator of fishes in the Smithsonian Institution.

Dr. Schultz has perfected formulæ for telling the weight of various types of whales and also for the larger, "streamlined" fish. He has discovered that there is a constant relation between length and weight.

OLD STUFF

THE oldest preserved meat in the world is at least 50 million years old!

Scientists have identified muscle tissues found in the great lignite pits in the Geisel valley, Germany, as belonging to the Eocene geologic period—which makes them at least 50 million years old.

The meat is fossilized. It was preserved when animals died and fell into the acid water of the ancient peat bogs that later were matured into enormously thick deposits of lignite, now being worked for fuel. Masses of animal and plant remains found in the lignite pits rate among the world's greatest fossil finds.

Microscopic examination of these tissues has shown the preservation of the finest details of the muscle structure. Besides muscle fibers, the specimens have yielded blood corpuscles, gland tissues, and surface tissues distinctly showing cell nuclei. One pterodactyl's meat is another scientist's pastime!

OUR INCREDIBLE UNIVERSE

LABORATORY tests show that man might live for 1,900 years if he could keep his blood temperature at forty-five degrees Fahrenheit. . . . From pictures made with a high-speed movie camera it is estimated that a stretched rubber band snaps back at 200 miles per hour. The chances are 300,000 to 1 that you won't be killed by lightning. Scientists have decided that the best place to sit in a movie theater is about four times screen height away from the picture. . .

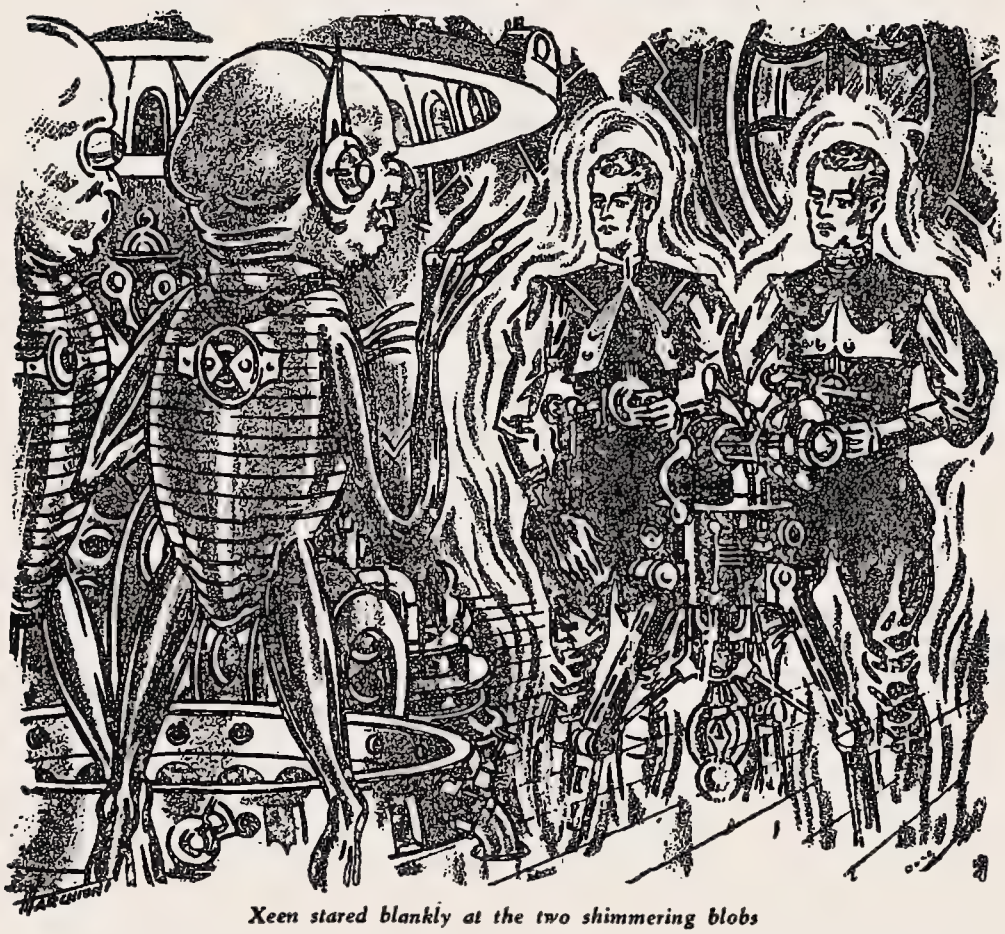
Three Columbia physicists recently announced that the size of the neutron is "slightly less than one ten-trillionth of an inch." It takes nature from 400 to 1,000 years to replace an inch of topsoil. . . . Although he was granted fourteen hundred patents, only four hundred of Edison's inventions ever actually worked.

Over 3,000 compounds were investigated during the World War for possible use in chemical warfare but only about 30 were found suitable. It has been estimated that there are seven hundred and forty-two living agents causing disease in man . . . Though it seems a brilliant searchlight to his tiny eyes, the love-light of the glow-worm is only 1/150 candlepower. . . .

SHADOW WORLD

By RAY CUMMINGS

Author of "The Great Adventure," "The Thing from Mars," etc.



Xeen stared blankly at the two shimmering blobs

Trapped in Another Realm, Tom Jarvis Discovers That Substance and Its Counterpart Mimic Each Other!

THE big laboratory of research physics of the Technological Institute at Washington was tensely silent.

"Are you ready?" Dr. Steele asked.

"Yes," Tom Jarvis said.

Beside him he saw young Peter Hantzen gripping the motion picture machine which they were taking with them; and he heard Hantzen also murmur acquiescence. Every nerve within Jarvis was taut as he waited for the signal from the grim Dr. Steele—the signal which would start him and and Hantzen simultaneously upon the weird transition into the unknown realm of the fourth dimension. Would there be living things in that co-existing realm? Would Jarvis and Hantzen ever reach it? Or would the strange electronic current now plunge them to death? Was this merely a suicide venture?

Like a man drowning, the thoughts flashed in a whirl through Jarvis' mind. It might be suicide, yet he was glad he was making this attempt. The safety of his Anglo-Saxon nation depended on

it. A large quantity of radiumite was needed, at once. It could not be produced on Earth.

Dr. Steele's newly discovered apparatus had been able to draw small quantities of radiumite from the unknown, co-existing realm of the fourth dimension—the shadow world which no one had ever seen, much less tried to enter. More radiumite was drastically needed now; and Jarvis and Hantzen had volunteered to try and secure it.

"Ready! Go!"

Dr. Steele's grim command struck into Jarvis' whirling thoughts. Simultaneously, Jarvis and Hantzen pressed the switch levers of the mechanisms encircling their waists.

Jarvis felt a sudden weird shock that made all his senses reel, as the transition began.

IN the realm of the fourth dimension, Xeen pressed forward from the dim recess and adjusted the discs of the sensitory-clarifiers on his bulging chest so that he could become better aware of the speaker's words.

This was a serious and very mysterious situation.

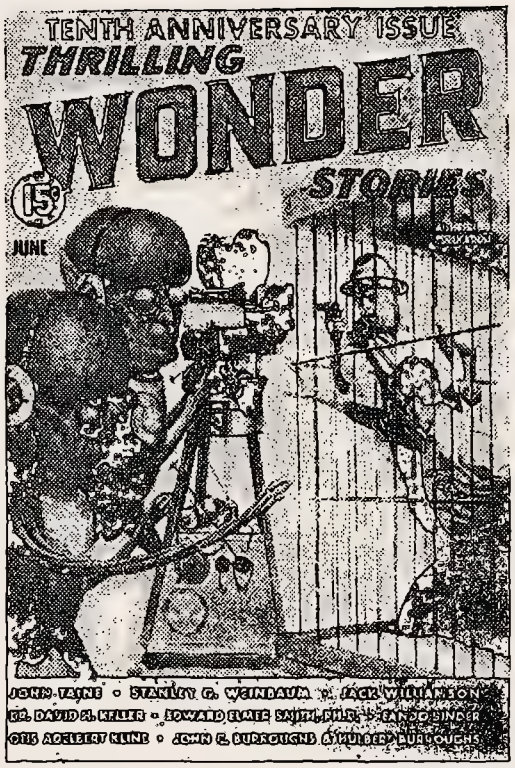
Many things, of course, were a mystery to Xeen. That was merely due to his lack of personal knowledge. But here was something that nobody—not even the leaders of great science—could explain. Xeen had hardly believed that in his great world, at the scientific height to which it had now developed, there remained anything really unknown.

The big room was dim. The time of rest and replenishment of brain and body was almost here, and the glow of phosphorescent radiation from the walls of the room was waning. Through the window ovals, he could see darkness descending upon the big cubical area of the city outside.

He turned the current of the discs on his chest up another notch, to sharpen his senses and keep him thoroughly awake.

"What it could possibly mean we do not know," one of the scientific-thinkers was saying. "We have studied it and there seems no answer."

There were several of the scientific-thinkers in the center of the room. They were all much older than Xeen. The



IN the Tenth Anniversary issue of THRILLING WONDER STORIES, Ray Cummings gave several possible interpretations of the cover reproduced above. He said that the scene could inspire a number of widely varied stories—and then proceeded to prove his statement by writing one himself. SHADOW WORLD is the result. We hope you like it.

grayness of the passage of time was upon them so that they were pallid in the waning radiation. They had opened the vault-pit where the abcilene was stored. The vault was in the center of the room and the group of aged entities stood over it. The pale green-yellow radiation from the great store of abcilene bars struck upward with a weird shafting glow.

Xeen knew what a desperate thing it would be if anything went wrong with the store of abcilene. It was a vital substance which replenished the brain processes; motivated the life, really, of every entity. It was very difficult to find the crude substance of which abcilene was composed; and more than half the workers gave all their time to its slow, arduous manufacture. Everyone needed constantly his allotted portion. The store of it here had to be maintained as the means

of existence while more was being refined; if it ever gave out, every living thing in the great nation of Xalites would eventually wilt into the unconsciousness of eternity.

"It is going!" the aged scientific-thinker was saying. "Nobody—nothing is taking it. But you can see it going now before our eyes!"

Again Xeen, with several others of the younger workers who labored here in the abcilene vaults, pressed forward. And now he found Zogg beside him.

"What can it mean?" Zogg asked softly.

Xeen could see the gleaming stacks of glowing rods of abcilene now, as he and Zogg peered down into the vault. The rods were no longer than the prehensile fingers of Xeen's tenuous hand —abcilene rods that at stated intervals you pressed into the spinal opening behind your head, where the fluids would dissolve it to replenish your vitality.

The big vault-pit was a glowing blur of phosphorescent sheen, but presently the normal rectification of Xeen's eye-lenses made it possible for him to see the details of the nearer stacks of rods very clearly. As though a molecular blast of thermatic pressure had struck, he saw where one of the stacks had melted away. And even as he stared, the rest of it was dissolving—turning wraithlike so that the vault-wall was visible through it.

Then it melted into nothingness and was gone!

One of the young entities beside Xeen and Zogg suddenly cried:

"Can this be some trick of the accursed Moloko aggressors? Something their science has developed? Are the accursed Moloko entities stealing our abcilene? Why, if they can do that, then soon indeed they will make us their slaves!"

THE spoken-thoughts made a little wave of muttered anger pass over the group of young Xalites. But there was horror in it—the horror of helplessness as one contemplates the awesome actuality of danger. The idea made Xeen shudder, with a little quivering tremble over all his sensory nerve-fibres.

Here in Xeen's world, there were only two important branches of people —the Xalites, to which Xeen belonged, and the Molokos, whose place of abode was beyond the great glowing hills of the Divide. The Xalites were willing always to be friends; to help with mutual effort in the advancement of their world; to collaborate in the conquest of Nature's secrets so that everyone—Xalites and Molokos alike, might exist more pleasantly and labor less.

But the Molokos, during the last life-span, would not have it like that. Especially more recently, when a fairly young Moloko leader called Tor had arisen with ideas of selfish aggression which would sacrifice everything and everyone to enhance his power and his personal vanity. He did not really dare attack the Xalites, but he often threatened it.

"It must be Tor who is doing this," one of the aged Xalite-thinkers said. "The damnable Tor. He has spies everywhere among us Xalites."

And someone else said: "That is true. Who can know but that perhaps some accursed Moloko spy is among our workers, even here in the abcilene-vaults? A spy who has found some way of doing this."

It seemed incredible. In the dim eerie light of the vault-room, there was no one to see the faint smile that parted young Zogg's mouth, as he pressed against Xeen and peered into the vault. It was smile of ironic contempt; and his bulging eye-lenses were gleaming with a strange glow. Zogg was not quite so young as the youthful Xeen. But the light of the vaults never showed that in reality he was older than he seemed.

Zogg was staring now silently down into the vault. The weird melting of another stack of the abcilene rods had begun. The top layer was turning translucent, transparent, then dissolving away. Gone!

"How queer that is," Zogg said. "Who could be doing that, Xeen?"

Xeen could only stare with a fascinated, alarmed awe. He was so absorbed, he did not notice that presently Zogg moved away. No one noticed Zogg—everyone was too interested in the vault-pit.

"Is it continuous like that?" someone

else asked. "If this keeps on, all our abcilene will soon be gone."

It was not continuous, one of the aged thingers was explaining. It occurred only at regular intervals. A little would go. Then for a long time nothing would happen. Then a little more of the precious abcilene would melt and vanish. Everything possible had been done to stop it. And the cause still was unknown. Tor could not be doing it, however. That was not reasonable. Neither Tor nor any of his people were really advanced thinkers. Most of their knowledge had been derived from the Xalites. But the accursed Molokos would profit—if they found out what was happening.

"We must take every precaution for secrecy," the Xalite leader warned. "Tor must not find this out. We have not lost much abcilene yet. We will find a way to stop this accursed thing."

NO one in the vault-room noticed that over in the shadows of the distant corner Zogg was crouching, with that faint ironic smile still on his face. Then, furtively so that no one would observe him, he adjusted his audion-discs for long-range transmission.

"This is Zogg," he murmured softly. "I want Molokos Leading-thinker M2." Then to the Molokos leader he swiftly gave details of what he had just learned and seen of the disappearance of the abcilene.

"I give you congratulations," Zogg chuckled, as he finished. "We will soon demand obedience from these Xalites and they will be powerless to resist us. Tell me, how are you accomplishing it, M2?"

But the voice in distant Moloko vibrated in Zogg's audions with a puzzled note.

"Zogg," the voice said, "we know nothing of these happenings."

It was puzzling that the Molokos were not causing it, but Zogg continued to chuckle. The Molokos would take advantage of it, whatever the cause.

Then presently Zogg was back beside Xeen.

"It has stopped for now," Xeen said softly. "You should have seen it go, Zogg. It was horrible."

To Xeen had come a great despairing fear. But with the vigor of youth, he thrust it away. All the young workers here were muttering that they would fight if the Molokos wanted to make war.

Suddenly in the eerie light of the vault-room, a cry went up. Xeen saw the weird thing, as soon as anyone else did, and he gripped Zogg excitedly by arm as all the crowding young workers shoved back to avoid the shimmering shadowy thing that suddenly appeared in their midst. At first it showed like a little blob of phosphorescent light. It seemed below the solid flooring of the room, to one side of the vault-pit—a wraithlike blob down there, as though you were looking through the solid floor and still could see it.

Xeen, like the others, stared blankly. The shimmering blob down there had parted now into two blobs. Details were coming to them—form and color. Now they had floated upward, emerging from within the solid floor so that they stood level. They were slender upright things. Taller than Xeen. Then with a shock he realized that they were living beings! Weird, horrible looking things. But they had the vague appearance of a thinking-entity.

There were two legs, queerly thick and straight. The arms were thick, stiff-looking. A long upright thick narrow body, with a chest that barely bulged. A small round head, with things fastened in it in a tangle, like a shock of tiny short wires, bristling on a dynamo dome. And the faces were weird. A flexible, whitish covering. But there was a mouth, a protruding nose, and two eye-lenses, not bulging, but back in the face, with wires in a tangled little line over each of them.

"Xeen! Zogg! Quickly! Get the barcage!"

Xeen came to himself to realize that one of the leaders was wildly calling to him and Zogg. The two upright beings had materialized now so that seemingly they were nearing complete solidity. They were on the floor level evidently trying to walk. With them was some sort of inert thing—a mech-

anism perhaps. They dropped it, as they staggered, both of them stricken as though about to fall.

"Xeen! Put the bar-cage around them!" the Xalite leader urgently ordered.

A large cubical bar-cage—used as Xalite punishment when occasionally a youthful worker transgessed the law—stood in a corner of the room. Xeen and Zogg rushed to it, shoved it toward the upright beings. They were, fortunately, still wraithlike, tenuous and the solid bars of the cage passed through them.

THEN Xeen and Zogg held the cage steady, with the two weird beings materializing within it. Sounds were coming from their mouths now. They stood clinging together as though stricken with some horrible lethargy. Then they staggered and fell; lay inert, captives within the cage.

"They're still alive," Xeen said. "See the body movements?"

"Yes," Zogg agreed. "They are very strange. From whence could they come?"

Xeen couldn't answer that. None of the aged leaders could guess. The time of rest was now half over. Xalite guards paced the vault room. The cage and its two inert weird beings had been taken outside; and Xeen and Zogg were put on watch. These were the beings, doubtless from some weird, unknown realm, who must have been stealing the abcilene.

The queer mechanism that the two beings had brought with them, lay here now beside Xeen — a three-legged thing, with a cubical box on top. The box had a single crooked arm. It seemed to have a lens-eye in front of the box, deeply buried. And another big lens-eye fastened outside. But the thing had no sign of life. It was wholly inert, built of strange materials. Xeen propped it up on its three legs and it stood quiet, as he examined it couriously.

Then again, for a long time, they waited. They could see now that the bodies of the unconscious beings were wrapped in flexible material that altered the shape, so that you could not tell what exactly was underneath. But the face and the hands were uncovered.

"Look! They are moving!" Zogg said suddenly.

Within the cage the two beings were recovering consciousness. They stared out through the bars as they sat up; then they staggered to their feet. Xeen and Zogg had jumped erect also. Unquestionably the two weird beings could see them. They stared. From their mouths came sounds. Then they rushed at the bars of the cage, futilely rattled them.

One of them held something in his hand. It spat yellow light and heat. It roared and a little pellet struck against Xeens bulging chest and was repelled by the instinctive magnetic-refraction of his nerve-fibres.

"Stop raging," Xeen said. "We will not hurt you."

Could the beings understand him? They stood gripping each other now. Xeen realized that the thing one of them was holding was supposed to be a weapon, and the being was astonished and dismayed that the little pellet it seemed to have flung at him had not hurt him.

"Can you talk?" Xeen said, more gently.

Yes, it seemed that they could talk. They were muttering to each other. Queer, guttural words—not liquid and musical like the flowing speech of the Xalites, or even the gruffer intonation of the Mokolos. Some weird language wholly unintelligible. But was it quite that? Xeen had always been taught that sounds from one living thing to another, must inevitably convey their intended meaning. And these strange beings—no matter from whence they had come—were here now, a part of this world, subject to its natural laws.

"Who are you?" Zogg gruffly demanded.

"Speak to us. We won't harm you," Xeen said encouragingly.

Then one of the beings spoke. At first it blurred. It seemed to war with Xeen's brain-fibres—an alien thing, struggling to get through to his understanding.

"Try again," he said gently.

Was the same phenomenon happening to the two beings in the cage? It

seemed so. At the sounds of Xeen's voice, their weird pallid flat faces were wrinkling as though the surface was fluid.

"Don't you understand me now?" Xeen said. "I can almost understand you. Try again. Do you understand?"

"My God, you sound as though you were talking English," one of the weird beings said suddenly. "I'm Tom Jarvis. This man with me is Peter Hantzen. We've come here into the fourth dimension—from our Earth-world. We're Americans. That thing you've got out there won't hurt you. It's just a motion picture machine, which Hantzen here idiotically thought he should bring. What's the matter with you? Doesn't that make sense?"

IT was an amazing thing to Xeen—to everyone in Xalite, for that matter. For the periods of more than two times of rest now, all the aged Xalite thinker-entities had been questioning the two weird beings who said they were from a distant realm called Earth-world. Xeen could not understand the details. But his youthful brain-cells absorbed this weird new knowledge eagerly, storing it in his memory. The Xalite thinking-entities agreed that the two weird beings were telling the truth.

They were, it seemed, what they called young men. They came from a co-existing realm—a realm that occupied very much the same space as Xeen's world. But it had different factors. A different vibratory rate, they said, so that it was a wholly different state of matter. They called it a realm of three dimensions, and Xeen's realm, was, to them, the world of the fourth dimension.

"Very strange," Zogg whispered once, to Xeen, as they listened. Zogg was always here, listening with a strange deep-set glow lurking in his bulging eyes. But Xeen did not notice that.

The Earth-world was very big. These two Earth beings named Tom Jarvis and Peter Hantzen, were Americans. They had been born in 1930, as they called it; and their Earth-world time now was 1955. They were part of what was termed the Anglo-American Alliance. It was a big nation now, friendly, without desire to harm its neighbors. But in a place called Middle Europe, an aggressor nation had risen up. It had a single man leader. He was untruthful, unscrupulous, savagely eager to make his nation bigger. Always he was threatening war and killing.

"Why," Xeen whispered, "we can understand that, Zogg. Tor and the accursed Molokos are like that."

Tom Jarvis did most of the talking. His companion, Peter Hantzen, mostly always just sat silent, staring and listening. Xeen had come to feel that he liked this weird-looking Earthman, Jarvis. But about Hantzen he couldn't be sure. And Xeen was puzzled. He knew that he might always delve with thought-transference into the mind of any living thing which was upon a considerably lower intellectual plane than himself. Xalites and Molokos could not read each other's minds. But the things of the forest could hide nothing of their glowering thoughts from the vastly superior intellect of a thinking-entity.

Could Xeen now read the minds of these two Earth-beings? Nobody but Xeen seemed to think of that. But he tried it now. It seemed that he could do it, a little, though everything was blurred and vague. With Tom Jarvis, there seemed nothing but an elaboration of what Jarvis was saying.

But the thoughts of the brooding Peter Hantzen were puzzling. There was something about them very different from those of Jarvis. Thoughts, it seemed to Xeen, that this silent, watchful Peter Hantzen was careful to hide.

Did Zogg notice it? Once, Xeen believed so. It seemed that Zogg very often stared intently at Peter Hantzen.

The scientists of the Anglo-Saxon alliance, Jarvis frankly explained, had found a way to bring the abcilene out of the fourth dimension into their own world. They didn't call it abcilene. To them it was radiumite—a very rare, valuable substance. And they needed it for their war materials. With it they could quickly crush the unscrupulous Dictator of Middle Europe. Without a considerably supply of it now, their modern electronic weapons would be inadequate. They would be helpless.

What they had been getting from Xeen's realm was too small a quantity, coming too slowly. So Jarvis and Hantzen had dared to try the transition of their human bodies. It had knocked them unconscious as they arrived, but they were all right now, and they begged help in getting the abcilene. The safety of their world and millions of people depended on it.

Xeen saw now the tiny apparatus of wire which was fastened around the middle of Jarvis and Hantzen, by which they had changed the vibratory rate of their bodies, flinging out an aura which they called an electro-magnetic field so that any substance within that field would also be transported. They had also a single, grid-like little apparatus, not much bigger than their heads. With it, Jarvis said, they could—now that they were here—alter the vibration-rate of a considerable quantity of abcilene and thrust it into their Earth-world very quickly. And Jarvis was begging that they be allowed to do it.

"But we can't let them do that," Xeen whispered to the intent, listening Zogg who was beside him. "We'd like to save them, but if they take our abcilene, we will be helpless against the damnable Tor. We would have to depend upon him for our immediate need of our vital substance."

It puzzled Xeen to see the queer look which leaped into Zogg's eyes. But Zogg only said:

"Yes, we cannot let them do that, can we?"

It occurred to Xeen then, that in some queer way, Zogg and that silent, brooding Peter Hantzen were alike.

XEEN led the way toward the hill ahead of them.

"How much further is it?" Peter Hantzen asked.

"I think from the top of that next hill is the correct place," Xeen responded.

"Beyond that dark line of trees," Tom Jarvis said. "Queer looking trees, Xeen. Is that what you'd call them? Everything in your world looks queer to me."

"I could not be sure that is the best place," Zogg said.

"We will do what our leaders told us," Xeen retorted. "From that hill, if we point the Earthmen's mechanism in the direction exactly as our leaders described, we will be aiming truly at the abcilene storage vaults of the Molokos."

Xeen was quivering with excitement. He and Zogg had been chosen by the leaders of the Xalites to put into execution this plan which the leaders had worked out with the Earthmen. Their little grid box of weird intricate mechanisms was capable of disintegrating any abcilene upon which it was directly trained, even at considerable distance. The Xalites certainly could not spare any more of their abcilene. What better idea, then, than to have the Earthmen secure some from the accursed Tor! His people would never suffer; the Xalites would give them what they needed gradually from their manufactured sources. But the Molokos would be just enough behind to leave them at the mercy of the Xalites for their supplies. It would keep them from ever daring any aggressive acts.

It was now midway of the time set. The dark empty landscape, here at the Divide about halfway between the Xalites and Tor's people, brooded with a blank silence. Xeen had carefully led his little party. The hillock to which they had been directed was just ahead. All was going well. Xeen was sure that nothing could go wrong.

"When you aim your little mechanism," Zogg said, "can you be sure you are getting results?"

"You bet," young Jarvis chuckled. "I only have to get an approximate aim, and oscillate it. When it picks up any radiumite—abcilene, as you say—it will glow and hum."

"And the abcilene will emerge directly into your world?" Zogg persisted. "But whereabouts in your world?"

"We have a receiving station for it in a place called Washington," Jarvis explained. "The vibration rate I'll impart to the abcilene will be tuned—synchronized, you might say—so that it cannot emerge except at that receiving station."

They reached the top of the little hill. Xeen, with his directional instruments, took the exact location of the distant

Moloko habitations, which were invisible beyond the blank darkness.

"You point it this way," he said eagerly to Jarvis. Then he stood aside near Zogg, gazing at Jarvis, who with Hantzen helping him, was erecting the little mechanism. Nothing could go wrong now. Xeen was thrilling with excitement. Soon they would return and the leaders would praise him. There was a complement-sex entity who would be very proud of Xeen. . . .

The thing happened very suddenly. In the dimness, Xeen was gazing at Peter Hantzen. And suddenly the Earthman's thoughts were clear. Wicked thoughts! So horribly wicked that Xeen gasped:

"You, Peter Hantzen—you're a bad Earthman! You're thinking that you and Zogg are going to kill this Jarvis man and me!"

HE was almost too late. Just an instant before he cried it out, Hantzen had produced his queer little weapon. Xeen saw him spring now at Tom Jarvis.

"What the devil—" Jarvis exclaimed. But he saw the weapon; his queer thick arm knocked it up just as it roared and spat light which went close over Jarvis' head. Then the two men were fighting; they were locked together, rolling on the ground in the darkness.

Xeen didn't see any more of that fight. With an oath, Zogg had sprung at him. It was an illuminating oath—the oath of a Moloko! Xeen went down with every nerve-fibre of him hissing anger at the attacking Zogg. He fell, with Zogg on top of him; but he wound one of his long prehensile arms around Zogg's neck, squeezing hard. Their entwined, angry bodies hissed with showering sparks at the contact. Every atom of the abcilene within them was burning, radiating at white heat. Two luminescent bodies, they rolled and fought.

Then suddenly Zogg's repelling aura was trying to force them apart. Zogg was frightened! Triumph rose in Xeen as he realized it; and he clung, resisting, his arm squeezing Zogg's neck, and all his body tensed to absorb Zogg's radiating strength. Their chest discs touched. The showering sparks now were all sucking energy from Zogg into Xeen! Zogg was weakening fast. His ebbing strength revivified Xeen so that he fought harder, and the end quickly came. Zogg fought only a moment longer. Then, like a mechanism with its fuse suddenly removed, he went inert. His body lay insensate. And whatever else there was of him had fled into the eternal unknown.

Xeen shudderingly rose to his feet. He had never killed an entity before. He realized now that it was quite a horrible thing to do. . .

"Xeen! Xeen! Where are you? Did he get you?"

From the darkness Tom Jarvis emerged triumphant. Xeen saw the dead figure of Peter Hantzen lying on the ground. Jarvis' face was stained with a red fluid. His flat chest was heaving up and down.

"You got him, Xeen? Good work, boy," he added. "Now, we'll—"

He stopped, and gasped. The little mechanism which he had erected was working! He had set it into operation just before Hantzen had attacked him. And all this time, Xeen knew, it had been dragging abcilene from the Moloko vaults, forcing it out, making it emerge in that place called Washington.

"We did it, Xeen!" Jarvis cried triumphantly. "Why, I guess we've got enough already! We—"

The little mechanism, with a sudden hiss, burst into a roar of light and destroyed itself.

"Ran it even beyond its capacity," Jarvis cried. "All right, Xeen. That's all we need. Let's go back. We—"

He suddenly clapped his hand to his middle and staggered.

"What's the matter?" Xeen gasped. "You are not hurt?"

"That damned Hantzen. In the fight, my transition mechanism was deranged. I'll have to try using it immediately, Xeen. My only chance to get back."

Light was hissing at Jarvis' middle; then it steadied. And now in the darkness, Xeen could see that the Earthman was turning wraithlike.

"Good-by, Xeen—you're a good fellow. Thanks for the help."

The voice was thin, fading. Xeen

had a flashing glimpse of Jarvis' face. The queer flat face, with eyes that didn't bulge—but Xeen had grown to like it.

Then Xeen was alone in the darkness.

"Good-by," he whispered. "I—I like you, Earthman."

He felt very lonely as he trudged back home. Zogg was dead. It had been strangely terrible to kill an entity like oneself. But within Xeen there was also a queer pleasure and pride that he had helped so many people in that other realm they called the Earth-world.

THE war on Earth was over. The Anglo-American Alliance had triumphed and peace was assured to the world.

"The War Department's got that fellow Hantzen's record now," young Tom Jarvis said, as he faced the little group of scientists and newscasters in the big Technological laboratory in Washington. "He was a spy from Middle Europe. Pleading to go with me on the pretext of trying to take motion pictures in the fourth dimension! His plot is simple to fathom. A receiving station is comparatively simple to build, and Berlin must have had one ready according to Hantzen's directions. The transition mechanism was another matter—he couldn't learn its principles so easily. But there at the end, he would have killed me, trained the disintegrator, not on the Moloko vaults, but on those of the Xalites, and sent that radiumite to emerge in Berlin by changing the vibration rate."

"Quite a different outcome to the war, if he'd done that," one of the young newscasters commented. "And different in that other realm also."

"I wish I could go back and thank them," Jarvis said. "Particularly a fellow named Xeen. You say it's quite impossible, Dr. Steele?"

"Inexplicably so," the scientist assented gravely. "Our apparatus remains inert." He smiled a little wistfully. "Science faces so many riddles. I'm wondering if Nature only permitted you to go that other time, because our need was so great."

"You say that there was quite a similar situation in the Fourth Dimensional realm?" one of the British newscasters commented. "Even a spy—that fellow named Zogg—just about like Hantzen. I say, that's jolly queer, isn't it?"

It seemed queer indeed to young Tom Jarvis, and it left him with a feeling of awe. Two co-existing realms—the one a shadow of the other. No, it wasn't just like that. To the people of each realm, the other was a shadow, and its own, the reality.

A thing of reality and its shadow always mimic each other.

To the wondering Jarvis came anew the realization of the vast intricacies of living things. All so different, and yet so fundamentally the same, everywhere, from the Beginning to the End.

But it seemed to Jarvis, too, that there was a progression. The good surely must be getting a little better. The evil, perhaps not quite so bad, or at least a little less able to triumph.

And the working of it all—ah, that was the Great Mystery.

"I TALKED WITH GOD"

(Yes, I Did—Actually and Literally)

and, as a result of that little talk with God some ten years ago, a strange new Power came into my life. After 42 years of horrible, sickening, dismal failure, this strange Power brought to me a sense of overwhelming victory, and I have been overcoming every undesirable condition of my life ever since. What a change it was. Now—I have credit at more than one bank, I own a beautiful home, drive a lovely car, own a newspaper and a large office building, and my wife and family are amply provided for after I leave for shores unknown. In addition to these material benefits, I have a sweet peace in my life. I am happy as happy can be. No circumstance ever upsets me, for I have learned how to draw upon the invisible God-Law, under any and all circumstances.

You, too, may find and use the same staggering Power of the God-Law that I use. It can bring to you, too, whatever things are right and proper for you to have. Do you believe this? It won't cost much to find out—just a penny post-card or a letter addressed to Dr. Frank B. Robinson, Dept. 711-12, Moscow, Idaho, will bring you the story of the most fascinating success of the century. And the same Power I use is here for your use, too. I'll be glad to tell you about it. All information about this experience will be sent you free, of course. The address again—Dr. Frank B. Robinson, Dept. 711-12, Moscow, Idaho. Advt. Copyright 1939 Frank B. Robinson.

Astronomy Is Easy—When You Know the Answers!

No Help Wanted

By ALFRED BESTER

Author of "The Broken Axiom," etc.

I WASN'T ready for the bread line yet, but I was in a pretty desperate situation. We had overestimated the value of the resources I had taken with me—and I was stranded, penniless, with no possibility of communicating with my chief for at least another six months.

I had to get some kind of a job.

As I pulled on the best clothes I had, I considered my capabilities and wondered how they would meet the demands of any prospective employers. My appearance was fairly decent. And I felt that I had more than average intelligence. So surely my qualifications should obtain me some kind of position.

Although I had been living in the city for a year, I could not get used to the tall, stone skyscrapers that hid the sun; or like the narrow streets. I wandered along, trying to decide on a course, when suddenly, as I passed the campus of Yorke University, I had an idea. The university maintained a large astronomical observatory, and if anyone was qualified for a job with the department of astro-physics, astronomy, and what-not, I certainly was. Quickening my steps, I marched over to the engineering building, mounted the steps, and searched out the main offices. Shortly I was shown into the office of Dr. Barton, head of the astronomy department.

When I told him what I wanted he laughed.

"My dear sir," he said, "in the first place, we haven't many positions open. In the second, we could never take a youngster like you. Astronomy demands experts, not amateurs who love the moon and stars and have taken a romantic elementary course in college."

"How do you know I'm not as good as an expert?" I countered.

"That's simple," he answered, "though I don't want to discourage you. Just now we are engaged in an intricate study of Mars. Let me ask you a few elementary questions which we already know, but which will floor you."

"Go ahead," I said.

"All right," Dr. Barton grinned. "But remember, you asked for it. Now then—What conditions do ultra-violet light photographs reveal? Give me two theories concerning the cyclic aspects of the polar caps? What have Lowell, Pickering or Antoniadi to say about seasonal changes as revealed by infra-red photographs? What were the results of the Slipher and Very spectroscopic analyses of Martian atmosphere?"

I stared at him in bewilderment. "I can't answer those questions," I said, "but why don't you ask me something about the geography of Mars?"

He arose to usher me out. "No, no, my boy. No dreams. We have hundreds of crack-brained youngsters with crazy theories pestering us all year. I should have thought you too intelligent for that sort of drivel. Come and see me again when you've studied a lot more. Don't give up." He laughed good naturedly. "Who knows, you may be the first to explain the canals of Mars!"

I watched the door close firmly in my face. Then I shrugged and turned to walk away. Canals on Mars! Where did these crazy Earth inhabitants ever get such an idea? Ever since I had come to Earth I had been hearing the most ridiculous things about my native planet.

What barbarians! And what a job—to be the pioneer explorer of this mad world! I resolved to ask for a substitute as soon as I could get into communication with my chief at the next opposition. It needed more nerve than I had to investigate this planet of savages.

Prize-Winning Letters

HERE they are! The 8 big winners in our national science fiction cover contest!

In our August, 1939, issue the editor announced that THRILLING WONDER STORIES would pay big cash prizes for the three best letters explaining the cover scene. The cover painting, reproduced herewith, depicted three adventurers witnessing a battle between two prehistoric mammals. One unique fact about the scene was that each of the three adventurers were depicted dressed in a different robe, suggesting three different periods of history.

Each letter, therefore, had to explain the following questions: What is the relationship between the Roman, the Viking, and the Spaniard? Inasmuch as they obviously came from different periods in history, different centuries, how were they assembled together? And finally, how did they project themselves into a prehistoric era? If a time-traveling machine were the method of transportation, then how could the past be co-existent with the present? We thought that the many problems would make the contest a tough one.

COVER CONTEST WINNERS

First Prize $25.00

Awarded to John G. Maguire, 231 Park Drive, Boston, Mass.

Second Prize $15.00

Awarded to Bill Brudy, Wolverine, Michigan.

Third Prize $10.00

Awarded to Scott George, 2016 Terrace Place, Nashville, Tenn.

Honorable Mentions

(One-Year Subscriptions to THRILLING WONDER STORIES)—Welborn Widick, 1924 Laurel St., Shreveport, La.; J. Beatty, 84 Cathedral Road, Cardiff, Wales, Great Britain; John B. Ward, Detachment, 9th Signal Service Co., Fort Armstrong, T.H.; John Patch, Concord, Ohio; Samuel D. Russell, 507 Fifteenth Ave., S.E., Minneapolis, Minn.

But hundreds of entries from contestants soon convinced us that nothing daunts the readers of science fiction. The enthusiastic response was gratifying.

Many contestants lost out because of a weak explanation for the assembly of the three adventurers. No natural, convincing reason was established as to why the three adventurers were selected from different eras. A large majority of contestants glibly explained the entire scene by telling of a scientist who invented a time-machine, traveled into the past, picked up specimen inhabitants with him from different centuries in time, and ended up in a prehistoric era.

We think the winners selected merit their prizes. Here's the first prize-winning letter, by Mr. John G. Maguire. Congratulations to all the winners—and there will be another contest soon for those who want to try again!—THE EDITOR.

THE FIRST PRIZE-WINNER

IT was a rainy night, and I was standing in the doorway of our Warriors of Old exhibit at the World's Fair.

Business is always slow in bad weather, and I was thinking of how hard a pitchman has to work to make a living. I have been a barker for years, and have worked in about every kind of show in the carnival game. And so, when I saw the rain start to fall, I headed in under cover. People never listen to a spiel when the rain is running down their necks.

As I stood watching the rain bounce off the mid-way, I saw a skinny little guy stop and look at the posters outside our exhibit. He was thin and in the middle fifties. He wore a black suit, and his pants were frayed at the cuffs. A pitchman notices little things like that. There's no sense in spieling to a crowd that is broke.

His hair was white, and it hung down over the collar of his cheap raincoat. He was hatless, and at first I thought he was one of those guys who go around preaching some new cult.

You know the kind I mean. They call themselves the reincarnated high priest of some ancient religion. And some of them do pretty well for themselves. A rainy day doesn't hurt their gate.

After looking at the posters for a while, he stepped inside and started chatting.

He said he was an inventor. A "scientist inventor," he called it. "I've got a sensational exhibit of my own," he told me. "But they won't let me exhibit it at the Fair. What has your exhibit got that mine hasn't?" he said, somewhat sourly.

He struck me as being a friendly little guy and I began to take a liking to him, even though he did sound bitter. So I invited him to step in and see our lay-out.

Our exhibit consists of a lot of people dressed up in the costumes of various countries. Nothing fancy, you know. Just the well-known ones that everybody recognizes. We have old-time Spaniards, Norsemen, Gauls, Romans, etc. I'm one of the old Norsemen. I stand in front of the exhibit, giving my spiel, all dolled up in a sword, a shield, and a helmet with wings on it.

He seemed pretty interested in the whole layout, and invited me to come over to his place and bring a couple of friends with me. It was supper time, and the crowd was small, so we left the joint. Joe Magune and Ed Hill, two of the boys in the show, went with us.

in Our Cover Contest!

Joe plays the part of a Spaniard who lived about the time that Columbus was putting the Queen's jewels in hock, and he wears the costume of that period. Ed is rigged out like the Gauls were when Caesar was making Prime Ministers grab their umbrellas and start talking about appeasement.

It turned out that his exhibit was like one of those layouts devoted to the World of Tomorrow. There were all sorts of gadgets and machines designed to make life easy in a changed world. The little guy, he said his name was Dr. Arnovitch, explained it all to us.

"Here's an exhibit that would knock their eyes out," he said bitterly. "And they won't let me show it at the Fair. They think I'm mad!"

There were models of space ships and rocket ships. He showed us rocket ramps that would propel the ships into the stratosphere. There were airlocks which would enable the space explorers of the future to sail through the stratosphere regardless of the change in air pressure.

He explained elaborately how Atomic motors would hurl these ships through space at a speed which our age had never attained, thus making possible space exploration. He said it was the hope of scientists that some day men would set forth in these ships and land on Lunar craters. I know a little about science—enough to know he was slinging the real McCoy.

And then he showed us his invention. It was a huge, queer looking affair, consisting of an immense glass globe set in a steel base. It made me think of an orange stuck in a lady's slipper, but magnified a hundred times. It was mounted on a rocket ramp.

The Doc took us inside it, and there was plenty of room to move around. We saw that it had an atomic motor, airlocks, and several other machines designed for space travel. The ship was controlled by a radio beam the Doc had discovered.

And then he made the proposition. The ship was ready for a trial flight, he said, and he was planning on making a trip that night. But he wanted some companions to go with him as assistants. He said there would be no danger, and that we would be helping the world of science if we made the trip. Well, we didn't mind being heroes, but the five hundred dollars he offered each of us did it. We went.

I was looking at one of the recording instruments on the dashboard when the Doc trained the radio beam on the ship. There was a slight whirring sound, the needle shook a little, and the ship slid off the ramp and started through space. The realization that we were moving took our breath away.

Up and up we loomed. It seemed a matter of only seconds until stars were shooting past us. Silent with awe, we saw bleak, desolate, cold-looking masses of matter, with no sign of human life. Vegetation was sparse, and was seen only in what looked like the mouths of caves. Maybe there were warm springs, deep down, in the caves, which made a little plant life possible. But the vegetation had a slimy, unhealthy look.

We raced past planet after planet at an incredible rate of speed. Everywhere we looked we saw bleakness and desolation lighted by a sort of murky gloom.

Suddenly the motor began to cough just like a gasoline engine. The Doc twisted several knobs, worked levers, and turned handles. But it was no go, we continued to lose speed. Cutting the motor, he coasted down and landed the ship on a planet. He went to work on the motor and I looked out to see on what sort of place we had landed.

We were on a small island. All around us was water. But it was rust-colored, unhealthy-looking water. Snakes and all manner of foul water-life were in it. A few vulture-like birds flew overhead. Some small shrubs grew in the water and in the muck at the water's edge. No human life was visible.

As I gazed at this dreary place, a huge dinosaur pushed his way through the sparse foliage and came down to the water's edge. Bending his long ugly neck, he began to drink.

Then I realized what had happened. We had landed on a planet that was millions of years younger than Earth! The plant and animal life that had vanished from Earth still existed on this planet.

The huge, hideous monster was sucking in great draughts of water. Suddenly he stopped. Lifting his head, he sniffed and gazed back at the way he had come.

Advancing slowly through the foliage was another dinosaur. Snarling and spitting, with his huge mouth drooling, he made straight for the first one. The first one, we'll call him Mr. A, let forth a tremendous roar and raced to meet Mr. B's charge.

Rearing on their hindlegs, the two locked. Then they stepped back and stood pawing the air, striking at each other with their heads, trying to sink their long cruel teeth home.

Back and forth they lunged and wrestled. With a quick thrust B flicked out his forefoot and raked his claws down A's side. Blood spurted from the line of long, ugly gashes in A's side.

A snarled, baring a double row of long, saber-like teeth. Bellowing with rage and pain, he swung his long tail around and hooked it about B's body. The trapped animal braced and tried to pull free. But the tremendous strength in that huge tail pulled him closer and closer to his captor.

Standing upon his hind legs, he tried to claw and rip A's ugly face to shreds. But like a master boxer A avoided those cruel claws.

And then, in a flash, it was all over. Releasing his hold, A sprang forward. In a blur of motion his ugly head shot down and he fastened his long sharp teeth in B's neck. B uttered a cry of pain and fell to the ground. He thrashed feebly, then lay still, half in and half out of the water.

The last I remember was seeing the huge brute laying still while the blood poured out of the hole in his neck. A stood over him and roared out his cry of victory.

Sure, I fainted. What of it?

When I came to, the Doc had fixed the motor and we were racing back to Earth.

And believe me, I'll stay on Earth from now on, tough job or no.

—*Entered by John G. Maguire.*

THE COVER ON WHICH THIS CONTEST WAS BASED

WATCH FOR MORE CONTESTS TO COME!

FANS' FOTOS O.K.

By Alan Saun

I was overjoyed to learn that the New York Science Fiction Convention was the huge success it deserved to be. My only regret was that I was unable to attend.

Those fotos of the various readers in "Looking Forward" in the October, 1939 issue of T.W.S. certainly met with my approval. I had heard of them many, many times before, and was very glad to have the opportunity of seeing their pictures. They've done great work for the advancement of science fiction, and I wish them the best of luck in the Solar System.

And now for the stories. My vote for the best one goes to "The Planet of Eternal Night," by John W. Campbell, Jr. It was a fine interplanetary novel, and one I will long remember. Second best story was the Barnes-Kuttner collaboration, "The Energy Eaters." Now that we've had the two famous characters together in one story, I hope this doesn't terminate the series. Let's continue to see more of these interesting characters in the future.

"Via Venus," by one of my favorite authors, Gordon A. Giles, comes third. Hurry along with the rest of the series. "Experiment With Destiny," by Oscar J. Friend, is most assuredly a "friend" of mine when he writes such swell stories. I enjoyed immensely the story, "Hero," by H. L. Gold, because of its unusual theme and human interest angle.

"The Scourge Below," by Sam Merwin, Jr., was another great story, as was "Hades," by Charles Ksanda. The cover of the October issue was excellently drawn by Howard V. Brown. It was quite unusual and different from the previous ones we've been getting.—Toronto, Canada.

GUNNING FOR GUNN

By James D. Tillman, Jr.

I am going to throw a somewhat belated monkey-wrench into the works of Lyle D. Gunn's story in the August issue, "The Time Twin." (Also, Weinbaum's "Circle of Zero.")

From Eddington's "New Pathways in Science," page 68, quote: "By accepting the theory of the expanding universe we are relieved of one conclusion we had felt to be intrinsically absurd. It was argued (page 62) that every possible configuration of atoms must repeat itself at some date . . . In an expanding space any particular congruence becomes more and more improbable. The expansion of the universe creates new possibilities of distribution faster than the atoms can work through them . . . If we continue shuffling a pack of cards, we are bound sometimes to bring them into their standard order, but not if we add one more card to the pack every morning."

Ho-hum, another good idea for a story gone to pot!—1137 S.E. First St., Evansville, Ind.

(Good hunting! But both stories weren't necessarily written with the acceptance of Eddington's theory of an expanding universe in mind.—Ed.)

In this department we shall publish your opinions every month. After all, this is YOUR magazine, and it is edited for YOU. If a story in THRILLING WONDER STORIES fails to click with you, it is up to you to let us know about it. We welcome your letters whether they are complimentary or critical—or contain good old-fashioned brickbats! Write regularly! As many of your letters as possible will be printed herein. We cannot undertake to enter into private correspondence.

A STAR FOR GOLD

By Donald V. Allgeier

My vote goes to "Hero" by H. L. Gold as the best story in your October issue. Here is an angle never before used in s-f, to my knowledge.

"The Energy Eaters" ranked second. I like the gilbness and the human characters of these Kuttner and Barnes stories. Incidentally, this story was the one which most readers would be interested in, yet it was not even mentioned on the cover. Yet, "The Scourge Below," a definitely inferior yarn, was featured on the cover. Why? This story, like so many by authors of other types of fiction who turn to fantasy literature, is hackneyed in every situation. It seems to me that such authors usually start where the really good authors were twelve or more years ago.

"The Planet of Eternal Night" was good, but there was too much scientific explanation for my taste. "Via Venus" is worthy of more sequels. The cover of this issue was good, but I would prefer covers with fewer people and more machinery. The story illustrated, "Experiment With Destiny," was quite good.

I'm in favor of the novels. The Anton York story should be good. It was a treat to see the faces of the outstanding s-f fans whose letters I have so often read. I liked Paul's frontispiece for "Planet of Eternal Night," but his depiction of the principal characters was disappointing. I prefer Wesso, Finlay, and Schomburg.

I'd like to see stories by Manning, Keller, Merritt, Breuer, Meek, Leinster and other old-timers. I like Kent's humor yarns.—623 S. Clay, Springfield, Missouri.

"VIA" TALES VICTORIOUS

By Jack Darrow

"Planet of Eternal Night" is a real science fiction story of the type we used to get a few years back. I don't know if it was written recently or not, but I was sure glad to see it. Let's have more like it. That was nice work by Paul.

Comes second place, comes "The Energy Eaters," by Barnes and Kuttner. Quade and Carlyle in one story! Didn't you have to mix asbestos with wood pulp in making the paper for this issue? Hope to see them together again. The story was well illustrated.

There is something about the "Via" tales that makes them unusually entertaining. The Venus series promises to excel even the Mars episodes. "Hero" was a fine little short. Gold is a comer.

Cover—not so good. Tell Brown to turn out more sharp ones like that last one for STARTLING STORIES. Pick out scenes that are more unusual, more science-fictional.

I want large size, trimmed edges, and eggshell paper. All right, all right, stay in your seat! It doesn't hurt to ask for the impossible at least once in a year, and it makes me feel good to vision such fantasies even though they can't be had.—3847 N. Francisco Ave., Chicago, Ill.

CARLYLE-QUADE GREAT

By William H. Groveman

Just finished going over the latest issue of THRILLING WONDER STORIES and I find it is much better than the preceding one. For light, humorous, and fast reading the Carlyle-Quade story, "The Energy Eaters," was great. You are doing well with humor. "Roman Holiday" was good, and it certainly is great to know that Pete Manx is to be back again, this time on a sortie in ancient Egypt.

The other stories in your October issue were all fairly good. I believe that "Via Venus" was about the best of all. "Hero" seemed not to have much of an idea and the ending was disappointing; however, it was okay. I enjoyed all the rest.

Your novels are still not up to par. "Planet of Eternal Night" is an improvement over the previous one, though, and the ones that you've announced for future issues seem good. Why are all the novels on other planets? Get down to Earth and I bet you could give us a good yarn. (See "The Three Eternals" in this issue!—Ed.)

The departments were interesting and the write-up of the Convention was outstanding. How about a few pages devoted to the fans? Pictures, and other items of fan interest to be included . . . I did try my hand at your quiz but fear I am a bit ashamed of my score.

Congrats on a pretty good issue. Just improve the novels a bit and T.W.S. will be tops with me.—18 Maryland Avenue, Hempstead, New York.

SIMAK'S SCIENCE SOUND

By Robert Jackson

While I have not exactly been a silent fan for some months now, this is my first letter to T.W.S. for a very good, if somewhat uncomplimentary, reason. You see, I always like to say **something** favorable about the poor mag I'm writing to, while in the case of Wonder this would have been exceedingly difficult, if not completely impossible!

However, the October issue has removed this obstacle quite effectively. Two of the stories could hold their heads up in any company, namely, "Planet of Eternal Night," by Campbell; and "Hero," by Gold. I have read your rag—pardon, I mean mag—since June, 1938, and each of these stories is better than the best produced during that period. In addition to this, "Via Venus" is on a par with any excepting one or two.

And as if this isn't enough, only **one** story in the whole issue could be classed as bad! Why in the old days, I nearly suffered a relapse upon finding one **good** story in anything under the total of three issues. However, that one story is, quite decidedly, extremely bad. I speak of "The Scourge Below." For gossakes, let's have no more of these banalities about the ants conquering, or nearly conquering, Earth! It makes no difference what trivial twists are given the plot, that type of story still gives me an acute case of nausea.

An s-f fan is usually not a true s-f fan unless he raves at great length on the artwork, even though he practically always knows absolutely nothing about that subject, and I'm no different so here goes. I find that the covers cannot be termed as anything better than mediocre, the lone exception being August.

Brown has a good imagination and his people are human beings, but the colors he uses often result in either a dreary or a discordant spectacle. I don't know why, because he used to do satisfactory work for another magazine, but his efforts for Wonder seem to lack sparkle and life. Oh, while I'm at it, here's my hearty endorsement of the SFTPOBE-MOTCOSFP.

You have a good crew of illustrators working for you, but I don't like the way the illustrations are sometimes handled. Let's have three-quarter page story-headings, at least. These half-page headings are quite futile. And I have no use at all for these skinny things that occasionally over-run the margins—I mean these vertical horrors that are a full page high and a few millimeters wide. A word of caution—hang on to Finlay! And don't let Paul do any more portraits!

Please accept my commendations for the recently instituted policy of including a short novel with each issue. How about getting some novels from de Camp and L. Ron Hubbard?

To the defense of Clifford D. Simak! In the June issue, Mr. D. M. is apparently skeptical of the probabilities of ultra-sonics with a frequency of 30,000,000 cycles having any brain-disturbing properties. He further states that this frequency is reproduced daily by man, using as an example his radio station which broadcasts on that frequency.

However, D. M. forgets that Simak was speaking of **sound** waves, while a radio utilizes **electromagnetic** waves. There is a difference, you know. The musical note, C, has a frequency of only 512, so it can be readily discerned that sound with a frequency of anything like thirty million will be rather high pitched.

About the magazine in general, I like "The Story Behind the Story;" I tolerate "Scientifacts;" but I could get along nicely without "If," especially since Binder changed his style—for the worse.—239 W. State Street, Barbertown, Ohio.

BIBLIOGRAPHY COMPILER

By Louis Goldstone, Jr.

The prize contest announced in your August, 1939, issue is no doubt encouraging to amateurs with the writing bug, but don't you honestly think that Brown could have painted a more suitable subject on the cover? This business of battling prehistoric monsters with awed warriors of various ages looking on from the shelter of a contraption is rather out of date, and cannot allow for any great variety of explanations. Next time, how about something really new and brain-busting for a contest subject?

May I inquire concerning the seemingly forgotten "proposed Science Fiction Bibliography?" The last I heard of it was away back before the old "Wonder" folded up. I am sure a report on the current standing of this project would be appreciated. As I understand it, the bibliography was instituted more or less under the auspices of the Science Fiction League, so you should be able to give us some information in the League columns.

As members were invited to submit titles of obscure pieces of science fiction, here are a couple of books of fairly old vintage which I have picked up in the last few weeks:

"Poseidon's Paradise," by Elizabeth G. Birkmaier; Clemens Publishing Co., San Francisco; 1892. This is a romance of Atlantis, and a fairly good one. It traces the decline and fall of the powerful island empire, and the migration of its people to the Mediterranean basin. Purely fictional, but interesting.

"A Journey To Other Worlds," by John Jacob Astor; D. Appleton & Co., New York, 1894. The tilting of the Earth's axis so as to produce constant temperate belts, as well as discovery of anti-gravity which enables adventurers to voyage to Jupiter, Saturn, etc., will be found here. Of course, what modern science fiction demands in regard to adherence to known facts of other-worldly physical conditions is totally absent, and a slight metaphysical tinge also detracts, but I think the book worth reading, if only for the sake of comparison.

While I don't suppose the above works are exceedingly rare, you might pass the information on to Mr. Miller, or whoever is concerned with the compilation of the bibliography.

Before I forget it, here is something that might be of interest to readers. For sometime I have sought Karel Capek's "R.U.R.", the original robot-play. I found it in "Modern Continental Plays" by Marion S. Tucker, published by Harper's in 1929. No science-fiction fan should miss this; as far as I know,

"R.U.R." is the great-grand-daddy of all mechanical men yarns.

In the same volume is Georg Kaiser's "Gas," which is certainly prophetic and futuristic; I swear it laid me low when I first read it. I'd give almost anything to see "Gas" produced on stage or screen.

Well, I was somewhat disappointed with R. M. Williams in the August T.W.S.; "Warning From the Past" was not so hot. Trouble is that I unconsciously expect Williams to maintain the high standard he set with "Beyond that Curtain," "Song of Shadow-Death," and "Man Who Looked Like Steinmetz." Those were stories.

Don't let Coblentz write those crippled shorts like "The Man From Xenern." Give the man a chance to preserve his reputation, and wait until you can publish one of his long masterpieces of satire.

"Roman Holiday" was swell. It just shows what an author with imagination and ingenuity can do. Whoinell says science fiction has exhausted its bag of tricks! "Time Twin" was also enjoyable. Graph Waldeyer resurrected a venerable plot, but did it beautifully; in my estimation, "The Cosmic Cube" ranks second in the issue, surpassed only by "Roman Holiday."

Retain the novel-section in the back of the magazine only if you have stories worthy of such consideration. It's a fine idea, but the reader expects something better than average in the special supplement.

That's about all, except that I wish T.W.S. would come out monthly. Even with STARTLING STORIES filling in, the lull is excruciating.—622 Presidio Ave., San Francisco, Calif.

(We're monthly now!—Ed.)

CALLING MR. TAINE

By Ralph C. Hamilton

The October issue was the best in quite some time; and the main contributing cause was Campbell's excellent novel, the best of the month. As far as I know, Campbell has never written an average story; his have all been good or better. It's a pity that he can't write more often; but, lacking his services, see if you can get some stories of his type, at least. How about it?

His tale had all that it should have had: good action and plot, well developed; realistic characterization and natural dialogue; and—somewhat of a rarity now—accurate, interesting science, the removal of which would have destroyed the story. And if anybody kicks about the fellow who never slept, just tell him about the man in—Austria, I think it is—who hasn't slept in twenty years, because of a brain injury. He's not tired, either.

Something of a contrast to "The Planet of Eternal Night," in almost all respects, was "The Scourge Below." It is evident that Mr. Merwin has not an adequate scientific background for writing s.f.; or, if he has, failed to apply it. I nominate it for last place.

"Hero" was very good, and takes second place, just edging out "Via Venus." The only fault that I might find in it was that the characters were too simple—that is, each stuck too narrowly to his little part, like the characters of the old melodramas, in which the villain was purely and unadulteratedly nasty, the heroine all sweetness and innocence, and the hero a combination of Dempsey and Lincoln. However, that tendency was only slightly noticeable.

Gordon A. Giles' unadorned realism and straightforward narration make his "Via" series uniformly good. It has the same characteristics that made the old interplanetary yarns, such as Manning's "Wreck of the Asteroid," and even Weinbaum's "Martian Odyssey," so well liked. I'm looking forward to the next in the series.

If "The Energy-Eaters" had been the first of a series, or an isolated story, it would have ranked higher; but as it is, it impresses me as being just another Quade-Carlyle story—good for its kind; but the kind is getting rather common.

The others were fair enough, or mediocre.

I see that various and sundry are clamoring for Taine. I've no objections; in fact, I think something should be done about it—no?—846 College Ave., Wooster, Ohio.

BRAVO FOR FRIEND

By Francis J. Litz

"Experiment With Destiny" is undoubtedly the best story in the current issue. More from Mr. Friend, please. While I'm at it, the Kelvin Kent tale in the last issue was just as good. I'm glad to see that you've printed the photos of the prominent fans in fandom. Now I know what they all look like. Jack Darrow looks to be a lot younger than I thought he was. I'm sorry I didn't attend the Convention.—703 Brown Street, Rochester, N. Y.

A SECOND "SKYLARK"?

By Richard Rafael

I just got hold of your super-October issue and I've been sitting up all night. I used to buy T.W.S. when it was the old Wonder Stories and I sure did love them. Fantasy has always appealed to my impractical mind and I get a kick out of chasing the enemies of the world through the universe and around planets. However, Campbell's "Planet of Eternal Night" threw too much Einstein around for my own comfort. Perhaps when I get my matrix mechanix and my subatomic straight I'll go back to that piece of high-toned s-f and like it.

I enjoyed "Experiment with Destiny." The implication that the musselfaces of Europe along with the Nazis need a little trimming is swell—and who is better qualified to administer the drubbing than the scientists? By the way, T.W.S. would be doing great if it would publish in one of its issues an expose of those whacky race theories that are so popular in the better insane asylums of Europe. People interested in the advance of true science like yourself would feel themselves mighty supported if a great mag like yours did the unveiling.

"Hades" was swell. Giving the young writers a boost has always been something the good magazines should do. Who knows? Maybe we'll get a second "Skylark" out of the mailbag one of these days?—San Francisco, Calif.

ISSUE SLAYS HIM

By Jon Ferris McLeod

May I say that in my humble opinion as a reader of T.W.S. that the October issue left me dead! What happened to your usually swell magazine? The first disappointment was the cover, and said disappointment grew as I progressed through the pages of the magazine. "The Energy Eaters" was the only good story, and it wasn't nearly long enough. H. L. Gold's "Hero" was fair, as a character story. The illustrations were awful, with the possible exception of the small picture on page 19.

In short, the October issue of T.W.S. simply reeked! I certainly hope the next issue is 100% better.—1225 Willow Court, Jacksonville, Florida.

FAVORS FANTASY

By Bill Brudy

Three shorts, Giles' "Via Venus," Gold's "Hero," and "Hades" by new-author Ksanda almost stole the October issue. "Planet of Eternal Night," however, carries off top honors mostly because of that imperturbable insomniac, Gray Barren. He is another character to add to the growing list of science fiction's "greats." Perhaps he is not of the calibre of the unforgettable Margaret of Urbs or Williamson's inimitable Giles Habibula, but he ranks well above the average s-f hero.

The Hollywood-on-the-Moon yarn was excellent, and the illustration for it was the best in the issue. "Experiment With Destiny" was all right, although this business of purg-

(Concluded on Page 129)

THE THREE ETERNALS
BY EANDO BINDER
A COMPLETE SCIENTIFICTION NOVEL

Vera York

Immortal wizards, armed with the scientific lore of two hundred centuries, dare to raise the lost world—Atlantis!

CHAPTER I

Wandering Space Ship

ON Mount Olympus, as all know who have read Greek mythology, live the gods. Jove, Mercury, Apollo, Bacchus, Neptune—their names are legion.

But there are not many gods, in a riotous confusion. There are but three. Immortal, and wise with the passing of time, these Three Eternals have looked over Earth and its folk at times, sometimes amused, sometimes angered, most often unconcerned.

They looked out upon the world of the Forty-first Century and were again unconcerned, though its inhabitants were doomed, unknown to themselves.

"Ah, these mortals and their absurd little civilization!" said one. "It is about time they and all they represent go into limbo—at our hand."

"It is dull waiting," yawned the second. "I wish—I actually wish—they knew of it, and challenged us. I would even wish a champion to appear for them. Anton York, for instance, who was greatest of them all."

"Anton York!" The third laughed. "He is far out in space. And if he were here, what could he do against us? Nothing!"

They smiled at one another, secure in that knowledge, and went back to their intricate game of four-dimensional chess, developed to help pass the slow crawl of time in their immortal lives. . . .

Out in the vast, uncharted depths of interstellar space, a small globular ship plunged Earthward at a speed greater than light.

Within it, Anton York and his immortal mate grew hourly more eager. They were returning for a visit to the world of their birth, after a long absence. Like gods they had gone where they willed, viewing strange worlds, queer civilizations, taking deep pleasure in watching part of the majestic sweep of cosmic history.

EARTH'S individual history had faded in their minds, overlaid by countless other events, but now nostalgia tingled through their veins. Near-gods they might be, but even gods must have a place called "home."

"I can hardly wait to get back!" said Vera York, with all the enthusiasm of an American waiting to see the Statue of Liberty after a year in Europe. "Why have we stayed away so long, Tony?"

"How long has it been?" Anton York asked, vaguely.

"A thousand years!" Vera had checked the time-charts, amazed herself.

"That long?" York shook his head. "Time does fly, as an old proverb says. Yet, what is time to us? We will live, Vera, till half the Universe has run down into cosmic rays. Millions of years, at the least!"

It was bare truth. They were both thirty years old—in appearance. In their bloodstreams flowed an elixir of self-renewing enzymes that constantly rebuilt radiogens, the tiny batteries of cell life. The boundless energy of all-pervading cosmic rays fed these radiogens, supplying the undying fires of youth to their bodies. Old age and disease could not touch them. The finger of Death could only mark them by violent means, if Fate so willed.

Vera shivered slightly.

"Millions of years!" she echoed. "Sometimes it isn't good to think of that." Her eyes, a little haunted, sparkled suddenly. "The first thing I'm going to do, when we arrive on Earth, is to take a swim in some cool mountain lake, surrounded by green trees. There will be birds singing, and soft warm breezes whispering through the leaves, and white clouds sailing on high—" She choked a little. "Oh, Tony, I'm just beginning to realize how much I miss those simple things!"

York nodded. In all their galactic roaming, there had been no world quite like Earth. No spot in the Universe quite so dear in their memories.

"We'll undoubtedly find a great civilization there on Earth," mused York, more practical-minded. "When we left, in the Thirty-first Century, mankind was already beginning to make the most of its nine-world empire. We'll find humanity in its happiest and mightiest phase since the first dawnman built the first fire and found that Nature could be his ally. Mankind deserves it too, Vera, for all of its previous bickerings, maladjustments, and crimes against itself. Civ-

ilization went through its adolescence in the Twentieth Century, when we were born. Now it must be approaching maturity."

His eyes shone as he went on.

"And fully matured, mankind will one day inherit the stars! It will be destined to replace so many of the worn-out, decadent civilizations that fell by the wayside throughout the cosmos. But only when they are ready for it. As we have done in advance, the ships of Earthmen will seek far worlds and—"

"Tony, look! The bolide chart!"

STARTLED at his wife's sharp interruption, York turned to look.

The bolide chart was a luminous screen whose milky surface showed any and all material bodies within range. Nothing larger than a grain of sand could escape the supersensitive instrument which recorded every tiniest ripple in the ubiquitous ether. With its train of mechanisms, the chart instantly recorded distance, speed, direction, size, shape, color and electrical charge of any passing object within the relatively close radius of a billion miles.

It was one of the precautions York had taken, with his scientic genius, to avoid accidents in treacherous space, so that their immortality was further safeguarded.

He watched the little black dot streaking across the lighted screen. At their tremendous speed, the passing object would be gone in seconds.

"No danger of collision with it," he said, integrating the data in his head. "It has a speed, relative to space, of a hundred thousand miles a second. Size, twice as large as our ship. Shape, quite uniform, elongated. Color, silvery. Direction, toward Alpha Centauri, from about Sol's position. Electrical charge—"

The dot slipped off the edge of the screen, beyond range.

"It's gone," said Vera. "First bit of matter we've passed in empty space, in days. Data sounded like a space ship, but of course it was only a lonely, wandering meteor of space. Maybe the next record will be that of the planet Pluto, within the Solar System. We're close now!"

York was strangely reflective.

"Yes, we're close—within a few trillions of miles. And therefore, it could be . . Vera, I think it was a space ship! I barely caught its electrical charge record, and it seemed to be inordinately high—like that of a power-plant of some sort. Meteors don't have power-plants. If it was a space ship, does it mean that Earthmen have already achieved interstellar engines? And were they heading for Alpha Centauri, the nearest star to Sol? And what for?"

"We'll find out when we arrive at Earth," began Vera, but her immortal husband interrupted.

"We'll find out now!"

York snapped on his radio, twirling the dials of his transmitter. Underneath the cabin floor a great generator hummed to life. A million kilowatts of electrical power, drawn from the eternal shower of cosmic rays, surged through the radio's diamond-

FEATURING

ANTON YORK

The Man of Tomorrow

walled tubes.

The stentorian radio voice that burst from the antennae of his ship was borne by sufficient energy to be heard with the weakest of receptors within a light year. On Earth, that amount of power would have heated all metals within a mile ten degrees above their surroundings.

"Anton York calling the space ship heading for Alpha Centauri!"

After he had called over and over, without an answer, he frowned in perplexity and reached for the engine controls.

"I've got to find out about that ship," he muttered. "The fact that it doesn't answer is—ominous!"

With his inertia-suspension field on full power, York slowed his ship from its translight speed to zero in short hours, and shot back along the course of the mysterious ship. It was odd to find a ship out here in the deeps between stars. He overhauled it in another few hours. They stared as it bulked huge against the backdrop of flaming stars.

IT was unlighted, dark, but York's detectors showed that its power-plant was warping space and accelerating constantly. He tried his radio again, with no result. Then he sent a rocket signal over its bow, and when that failed, gave a baffled grunt.

"One of two things," he conjectured. "Its occupants are up to no good, or it's a derelict. We'll find out quick enough."

"Careful, Tony," warned his wife.

In a space suit, presently, York cautiously maneuvered himself toward the strange ship with his reaction pistols. Vera was cover-

ing him with their guns. But no sign of hostility came from the accelerating ship; no sign of life at all.

Finding a hatch with the usual outside emergency lever, York entered the ship. A hand flash lighted the way as he went down a darkened companionway into the main cabin. He gasped as his cone of light revealed the figures of two men lying unconscious against the back wall, as though they had been thrown there violently.

Unconscious? York had only to notice their utter stillness to realize they were dead!

Back in the other ship, Vera listened as York's voice came from his helmet radio, a half hour later.

"Listen, Vera! This is a first-class mystery. The crew of two are dead, from excess acceleration. The air is thin, barely breathable, very impure. Their food supplies are moldy. Water, evaporated. It's almost as though they had been holding out against terrific odds. Must have left Earth months and months ago, at their slow speed, less than light. Died trying to reach an impossible goal, light years away. Fools, they had no chance at all! Only a translight speed engine would do it. But why, why did they try it? What drove them to this suicidal attempt at interstellar travel?"

His voice was half angered, half sorrowful.

"Daredevils there have always been," returned Vera. "Some, in Earth's history, succeeded—Columbus, Byrd, Lindbergh—"

"Daredevils? Perhaps." York was preoccupied. "Strange, though, that these men planned so poorly. And the haggard expressions on their faces, frozen in death, are those of men driven by some tremendous fanaticism. I wish I knew—"

Verda heard the soft indrawing of his breath, as he seemed to stoop, and then his voice again, excited.

"Vera, go into the lab and prepare the following injections, as I give instructions. Adrenalin—"

He went on, rapidly naming several rare compounds among his supplies, and giving the percentage of their solution.

"I'm coming across with one body," he said then. "Also have a bottle of oxygen ready. Hurry!"

"Tony, you mean—"

"Yes, reviving a dead man! One has been dead only an hour. He's still warm. Rigor mortis hasn't set in. But we'll have to hurry!"

CHAPTER II

The Dead Alive

TWENTY minutes later, Vera was handing York a hypodermic as they bent over the body of a man dead for more than an hour. Earthly science would have given the case up as hopeless. But York, with a knowledge of life forces garnished in several lifetimes of research, battled to bring back the spark of sentience. After a series of injections into the spine and heart, he waited. Powerful compounds were at work.

A fine dew of sweat beaded York's forehead. It was a slim chance, at the most.

Vera caught her breath suddenly.

A quiver ran over the corpse. A cheek muscle twitched. A low, hesitant thumping came into being in the quiet of the cabin. A beating heart! The ribs flexed suddenly, and the lungs gasped for breath.

York clapped a breathing cone over the man's nose and sent a stream of hissing oxygen into his lungs. The body quivered all over now, and suddenly the eyes flicked open, staring around blankly.

York took away the breathing cone, looking at the resurrected man a little proudly. He had run far into Death's territory and retrieved one of its victims!

"Can you speak?" York queried.

The vacant eyes paused on his for a moment, but only a broken gabble came from his lips.

Vera shuddered at the weird gibbering.

"Tony, you've brought back his body, but not his mind! It's horrible!"

York shuddered himself.

"But I've got to find out about the ship and journey," he insisted. "I'll try telepathy."

His brow furrowed as he concentrated on projecting a telepathic message. Within his left ear reposed a tiny instrument that could amplify brain waves enormously, his own or those of others. Sometimes he and Vera, for long periods of time, had communicated solely by telepathy, though it was mentally tiring.

York looked up at his wife after a moment, shaking his head.

"He doesn't respond coherently. His thought waves are completely disorganized. All I could pick out was some mysterious reference to the Three something. The Three Eternals, it sounded like."

Suddenly the gibbering of the resurrected man stopped. A look of sanity and awareness stole into his eyes.

"Who are you?" he asked quite clearly.

York had understood, though the man's accent was queer, the product of a thousand years' of language evolution since York had last been on Earth. He bent over the man eagerly.

"I'm Anton York," he returned, projecting the mental thought also, lest his archaic accent were not understood.

"Anton York!" The man's eyes widened, as a train of thought instantly followed that name.

The legendary Anton York! Two thousand years ago, in the Twentieth Century, he had been born, grown to the prime of life, and stayed there deathlessly, preserved by his father's life elixir. He had set out to solve the secret of gravitation, in three lifetimes of research. He had succeeded, but in the meantime the secret of his father's virus had been stolen. York had fought and defeated fifty other Immortals before Earth was safe from their would-be overlordship.

THEN he had gone out into space, he and his immortal wife, like gods.

They had returned. A thousand years be-

fore, in the Thirty-first Century, they had come back to find themselves again pitted against an Immortal who had survived York's vengeance against dictatorship. Before this renegade scientist had been sent to the death he deserved, York had performed the gratest man-made feats in all history.

Since the Thirty-first Century, Venus had a moon, also Mercury, and Mars had a third. York, world-mover, had done that. He had also formed rings for Jupiter, given Mercury a period of rotation, and relieved the harshness of most of the planets by suitable manipulations of heat, water, and gigantic natural forces. He had prepared the Solar System for mankind's dominion.

Then he had gone out into space again, drawn by its grandiose lure. A thousand years again he had not been heard from.

Now he was here once more, and the eyes of the revived man showed skeptical disbelief. Many there were, among Earth's people, who openly denied that any such man as Anton York had ever lived. It might well be, they said, an accumulative fable, involving the careers of dozens of mysterious scientists.

York caught all this from the man's startled mind. He smiled slowly.

"I'm Anton York, and I'm not a myth," he said quietly. "I've revived you from death, to find out about this mad journey you are making. Why were you going to Alpha Centauri, without adequate preparations?"

A look of horror suddenly flooded the man's eyes, as if just then recalling something.

"Civilization is doomed!" he said, his voice a dry croak. "There will be holocaust, destruction, all over Earth! The Three Eternals are doing it! We found out, tried to warn Earth. No one believed—we couldn't prove it. We hoped to reach Alpha Centauri, find planets to migrate to, save the race. Three Eternals—vicious demons—destroy civilization—doom—"

The voice became incoherent again, as though the ominous news he told had again driven his mind under.

York shook his shoulder.

"Tell me more!" he demanded. "Who are the Three Eternals? Where are they? Exactly what are they doing?"

"Three Eternals—gods of Mount Olympus—destroy all mankind—"

His voice trailed off into pure gibberish. A moment later his eyes glazed. His head dropped back and he fell into a second death, one from which even York's super-science could never rescue him.

Anton York and his wife arose, sadly.

"Gods of Mount Olympus destroying mankind!" Vera murmured. "It must have been some hallucination of his broken mind."

York turned a grave face.

"Maybe not, though! Civilization on Earth might really be in danger. The faster we get there and find out—"

In the following twenty-four hours that it took them to reach the Solar System, even at ten light speeds, the immortal pair were plagued by unrestful anticipation. They almost dreaded arriving now, perhaps to find some holocaust in progress on Earth, or already finished. The ship they had encountered had left Earth months before. What had happened in that time?

SOL, a comparatively mediocre yellow star in the hosts of heaven, became a sun. They swept past the dark outer planets. It thrilled them to see the splendor of Saturn's rings, unmatched in all the galaxy. Jupiter's rings, mark of York's last visit, thrilled them still more. Then past garnet Mars toward the green globe of Earth.

Familiar it all was to the two cosmic wanderers, but they hardly noticed. Earth occupied their thoughts—and the mysterious prophecy of doom on that planet. Yet nothing seemed amiss when they had dropped into the atmosphere layer.

A mile high, York halted his ship. Below them spread Sol City, the greatest metropolis of all time, with its fifty million inhabitants, the nerve center of the Solar System. It sparkled brightly in sunlight. Aircraft and space ships rose and descended from its many ports ceaselessly. It was bustling, vibrant, symbol of a busy, prosperous civilization.

There was nothing wrong here! York and Vera looked at each other in relief.

* * *

There was an interruption in the sanctorum of the Solarian Council chamber, in the capitol of Sol City. A dozen gray-bearded men, executive ruling body of the Solar System, looked around in annoyance. Who had dared disturb them?

Through the opening door strode a tall man of erect bearing ignoring the protests of a clerk.

"We couldn't stop him, sirs!" stammered the clerk. "Not even the guards. He has some strange power!" The clerk bolted, as though unnerved.

The intruder walked boldly up to the council table.

"I wanted to see you gentlemen," he said calmly. "It's urgent. When the guards resisted me, I used certain telepathic powers that I have."

'Who are you?" demanded the president of the council, glaring.

'Anton York!"

The councilors smiled.

"Strange," mused the president, "how parents with the family name York have always baptized their sons Anton. It's a great name to carry through life."

"No, I'm the real Anton York. I came out of space a few hours ago."

The councilors looked at him narrowly. They started a little at his smoldering eyes. Insane! The asylums were filled with those who imagined they were the almost mythical Anton York as in an earlier age so many had identified themselves with Napoleon.

"Yes, of course," said the president gently, tapping his forehead for the benefit of his colleagues. "Now you just come with us—"

York could not blame them for not believing. But as they all converged on him, with the intent of hustling him out, he set his lips a little grimly.

"Sit down, all of you!" he commanded.

The men all stopped. Their faces were puzzled. Nothing tangible opposed them, yet they could not go on. Rulers of the Solar System, they turned back and sat down, impelled by a subtle force that could not be resisted.

"My mental commands must be obeyed, though I'm sorry I had to use them with you," York said firmly. "You must listen to me, whether you want to or not. I am *the* Anton York. I have the lore of the stars, and of two thousand years of time. I have some questions to ask."

GASPING, the councilors now realized it was the truth. The stranger's words were spoken with an archaic accent that alone tied him with a previous age. It was Anton York in person—stunning thought—returning to Earth after a thousand-year sojourn in the space that was his virtual home. The visitation was totally unexpected. They stared in awe at this immortal who had almost godlike powers at his command.

"I see you are finally convinced," resumed York. "Now tell me, does any danger threaten civilization?"

"Danger?" The president shook his head. "We don't know what you mean!"

Relieved, but still mystified, York recounted briefly the episode in space.

The president shook his head sadly.

"So that was the ultimate fate of those two!" he murmured, and went on in explanation. "They were two flyers who told a wild story. They claimed they had been to Mount Olympus and had found the mythological gods of Greece, or at least three of them, called the Three Eternals. Furthermore, they were evil beings and planned destruction of civilization, by causing some harebrained geological upheaval.

"They were so insistent that we sent ships to Mount Olympus, but of course nothing was found there. They claimed to have been in a great marble building. Obviously insane, they were sent to an asylum. They escaped three months ago, and we heard no more of them till today, from you. Their mad flight to Alpha Centauri to search for worlds to migrate to, proves their insanity. They insisted the three evil gods would not rest till all mankind were annihilated!"

CHAPTER III

A Thousand Years of Progress

IT was a strange story the councilor in Sol City related, and later, when York recounted it to Vera, he was still thoughtful.

"Hallucination, after all!" Vera said with a note of finality. "But, Tony, you still look a little worried."

"I am," he admitted. "What do you say, Vera, that we take a trip around this Forty-first Century world, just to see that everything is all right?"

Vera nodded enthusiastically.

"Let's! After a thousand years of absence, it will be intriguing to look over this old Earth of ours."

In their space ship, upheld and motivated by the subtle warpings of gravitation, they soared over the world of mortal men.

Civilization had taken great strides forward, particularly in technology and industry. All the great cities of the Thirty-first Century had grown greater still. The somewhat makeshift space ship dromes of that earlier time in interplanetary expansion had been replaced by magnificent structures. With remarkable speed and efficiency, ships could be unloaded, restocked, refueled and overhauled. Interplanetary trade flourished.

The population of this age had reached a new peak. No less than ten billion human beings scurried over Earth's surface, and at least another billion were spread among the other planets.

The food problem had been solved by weather control, the manufacture of artificial staples from mineral matter, and the conversion of all desert lands into vast gardens. The great Sahara was no longer a desert, as York and his wife had known it. Irrigation through a tremendous canal from the Mediterranean had transformed it into one giant wheat field.

To supply his ever-growing demand for metals, mankind had finally tapped the vast ocean reservoir. Hundreds of electrical plants, on important coasts, powered by the eternal tides, extracted salt products. Ocean water poured in one end, to come out at the other almost chemically pure. Every element known, in varying amounts, then reposed in the caked residues in their plants. It was simply a matter of the application of Forty-first Century chemistry to separate these materials.

The wealth of products thus made available could not be measured in antiquated terms of dollars and cents. Of radium alone, least abundant of the ocean solutes, there was extracted a full ton each year. Gold, now a useful metal for its resistance to corrosion, coated everything metallic that people wore or used daily.

The high economic standard resulting from this material wealth had also allowed cultural expansion. Even the most backward of races and groups had access to literature, art, music and facilities for scientific research. Travel was within the means of most, and the preserved wilds of central South America, North America's West, and parts of Asia and Africa were constantly frequented by tourists.

"And this is the civilization supposedly marked for destruction!" York mused. "Who would even contemplate such a thing? Who would have the power? I'm just about convinced, now, that those two poor devils were hopelessly insane." He brightened. "Now we can take another trip around the world, and really enjoy it!"

IT was while they were leisurely crossing the South Atlantic one day that York suddenly halted their slow passage and lowered the ship toward water. In the bright sunlight, the smoothly rolling waves made a fascinating picture. But York stared as though he had never seen such a sight before. Finally he took out a pair of binoculars and trained them below.

"That's water, Tony!" laughed Vera. "Dihydrogen oxide—remember?"

"But you never saw water quite like that before," returned York Seriously. "Look for yourself."

After a moment, Vera looked up from the glasses.

"Why, it looks as if countless little seeds are floating—"

"Those aren't seeds, but bubbles!" interposed York. "Millions upon millions of tiny bubbles coming up from the ocean floor. Let's find out how far their range is."

He was already at the controls, sending the ship parallel to the ocean level. A mile away he stopped, looked, nodded.

"Still there!"

A mile further he went, again nodded. Next time he went five miles, then ten, a hundred, a thousand, and still found bubbles. His face grew solemn.

The next day he sent their ship scudding in straight lines north and south, and east and west, and in six other radial directions over the South Atlantic. He stopped every hundred miles while Vera reported with the binoculars. They mapped the area infused with bubbles as roughly three thousand miles long and two thousand miles wide, set squarely between Central America and Africa. It included all the Sargasso Sea.

"What does it mean?" asked Vera when her patience at her husband's moody silence had run out. "Why should this vast area of ocean surface be filled with bubbles? Where do they come from?"

"They can only come from below, from —" York paused, snapped on his radio. "Anton York calling the central radio exchange," he barked.

"Y-yes sir," came a half-frightened voice a moment later, awed by the distinguished caller. "What is it, sir?"

"Connect me with your main oceanology station in the Atlantic, please."

When the station at Cape Verde had answered and the director was called, York queried him.

"Yes," came the reply, "we've noticed those bubbles all right. They've been coming up for the past ten years! Their origin is beyond our best guesses. We've sent diving bells down a mile, our limit, without any clue. The bubbles must come from below that."

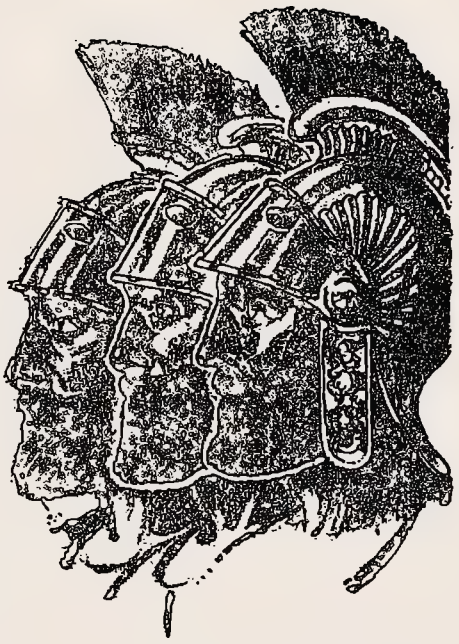
"One more question," York said. "Have the coast lines of the Atlantic changed at all in those ten years?"

Suddenly a sharp note of worry sprang into the director's voice.

"Yes! It's a disturbing fact that the entire coast line of western Europe is sinking at an unprecedented rate. Already, relatively, the water level has climbed a foot. Many coast lands will soon be threatened by inundation.

"The effect isn't local, however. The coasts of America are lowering also. And in the Pacific, the same thing is happening. There, too, a vast area of bubbles exists. We scientists have taken up the problem seriously. We don't know what this may lead to, if it keeps up, but we are making plans to dyke all sea coasts."

"Thanks."



In their eyes glowed a strange light—the sign of immortality

YORK snapped off the radio abruptly. He stared unseeingly out of a port.

"If this keeps up," he murmured, "dykes won't help a bit. Coasts sinking! Is it a natural event—or otherwise!"

Vera looked at him queerly.

"Of course it's a natural event, Tony," she commented. "The gods of Fate play strange tricks. Perhaps Jove, dissatisfied with the present civilization, is trying to destroy it with Neptune's weapons. That's just the way myths grow, Tony, trying to explain—"

She stopped and gasped as her husband suddenly whirled, snapped his fingers, and dived for the pilot board as though their lives dependid on it.

"Tony, have you gone crazy?"

"No, but I could kick myself!"

York sent the ship scuttling at the highest rate of speed safe in an atmosphere. His direction was east.

"I bow again to feminine intuition," he resumed. "We're going to Mount Olympus, Vera, to visit the gods! There's just a chance that those two lost souls were not mad. They did predict a geological upheaval. And then that man's dying words—"

"About the Three Eternals, Mount Olympus?" Vera cried. "Then Tony, maybe there's danger!"

But York did not answer. His face was set with a glowing anticipation as he drove for what he hoped would be the solution to a mystery as great as any he had ever encountered.

The globular ship raced over the southern coasts of Europe, over the Mediterranean, past what had formerly been Spain, France, Italy and Albania. It turned south a little into the mountainous interior of Greece. Finally the misty summit of Mount Olympus loomed ahead.

"Do you really expect to find something here?" asked Vera as they approached. "After all, it's just a Greek myth, dating from five thousand years ago, about Jove and the other gods."

York smiled peculiarly.

"Vera, we are myths too, a few centuries after each visit to Earth!"

Presently they were floating over the peak of Mount Olympus. They gazed down searchingly. As with other mountain tops, it was a scene of jagged rocks, scraggly growths, and dark hollows here and there tufted with snow.

"I hardly know what to look for, but nothing is there out of the ordinary," said Vera, almost in relief. "Besides, the president of the council said they had searched and found nothing."

"Look!" York pointed. "That large hollow to the left. Notice the shimmer over it?" He trained his periscope screen. "Can't clarify it. It looks almost as though—something is behind that shimmering mist!"

Vera grasped his arm. "Please, Tony, be careful!"

He lowered the ship cautiously until it was no more than a hundred yards over the strange, quiescent mist that did not stir in the wind. Still nothing could be distinguished beyond it save vague shadows and lights. Switching on his electro-protective screen, out of caution, York descended slowly till he had almost touched the layer of concealment.

A FEW more feet the ship sank, then stopped abruptly.

York and Vera looked at each other. No tangible barrier opposed them; only the queer, glittering, impenetrable mist. Experimentally, York put more power into his engine. His ship pressed against the weird obstruction until the hull creaked, but not one more inch was gained.

York eased up, muttering.

Then, with a suddenness that made them start, a powerful telepathic voice beat into their brains.

"Who is it seeks the presence of the Eternal Three?"

Glancing significantly at Vera, York answered, by the telepathy he had developed and used so many times before in space.

"Anton York, the Immortal!"

"Descend!"

Coincident with the word, the shimmering mist beneath their ship's keel vanished. Below was revealed the full extent of the hollow, desolate save for a huge marble building in its center. It was of ancient Grecian style, and the stone was stained with great age.

"Those two men were here!" gasped Vera. "They told the truth. Tony, do you suppose everything else they said—"

York shook his head non-committally.

CHAPTER IV

"Atlantis Shall Rise Again"

ANTON YORK landed the ship before the edifice, leaving his electro-screen on. When the telepathic voice invited him to step into the building, York politely declined. Instead he snapped on his televisor, requesting them to do the same, if they had such an instrument.

A moment later it proved they had and his screen became spangled with whirling lights that finally crystalized into the image of an ornately furnished room in which sat three men.

York and Vera looked at them closely.

Their rich, velvety togas were of a strange, unknown style. Their features, though strictly human, were a strange blend of Oriental and Nordic qualities. In age, they all seemed at the prime of life. But most of all it was noticeable that their eyes glowed with that same strange light that was in York's and Vera's—the sign of immortality!

"We have been expecting you, Anton York," said one of the three, still using the universal language of telepathy. "Ever since your arrival in the Solar System, we knew you would hear of us. How did it happen?"

York told of meeting the derelict ship, and the resurrected man's words.

"He said you had threatened destruction of civilization!" he concluded challengingly.

The spokesman smiled frostily.

"Yes, I believe we did tell them the story. Briefly, some months ago, they were flying over Mount Olympus in an airplane. Its motors failed and they smashed up on our roof of protective mist. As a whim, we nursed their lives. As a further whim, we told him the story you heard. We wanted to see if it would drive them mad. But we lost interest in them quickly, sent them away. We have lived a long, long time. Nothing in the world of mortals interests us any more."

Something of rage arose in York at the calm, cold way the man spoke of other humans.

"You had no right to toy with two human lives!" he cried hotly.

The Eternal shrugged.

"We have lived a long, long time," he repeated. "Conceptions of right and wrong melt into one another through the centuries."

York was about to reply angrily again when Vera touched his arm.

"Don't argue with them, Tony—no use!" she whispered rapidly, consciously willing her broadcast thoughts blank. "Find out all you can about them instead."

York pressed her hand, spoke to the trio of cold-faced men.

"Just how long have you lived?"

Again the icy, disdainful smiles from all three of them.

"You have lived how long, Anton York—some two thousand years since you were inoculated with the radiogen-renewing serum? We, too, were given such an elixir of youth to keep up eternally at our prime, but that was—twenty thousand years ago!"

THE incredible statement left both York and Vera numb for a moment. These three had lived for almost an astronomical age!

"It can't be true!" stammered Vera. "It can't!"

"It is true, however," assured the Eternals. "For twenty thousand years we three have lived and breathed. You wonder how we could have filled in our time. Most of it has been spent in space, as you two have spent your time. We have roamed endless distances, seen uncounted other worlds of other suns.

"However, at first it intrigued us to do certain things in the Solar System. We laughed to ourselves, Anton York, when we saw you moving asteroids and giving Jupiter rings. For you were simply carrying on what we had dropped in boredom. We were the ones who made Saturn's rings! And we had blown up the planet revolving between Mars and Jupiter, testing our powers, to make the present day asteroids.

"Venus originally had a moon which we moved to a new orbit. It is called Mercury now. Mercury; in mythology, is the wandering god—or the wandering planet. We named all the planets.

"But these things lost their novelty after a time. We did no more. Wandering through the void and observing other worlds and civilizations occupied much more of our time. That eventually palled also. Immortality has its penalty of ennui, as you will notice, too, when you have lived a little longer and seen the ashes of futility behind the fires of life.

"In the past five thousand years we have stayed on Earth, finding its pageantry at least interesting as anything else in the Universe. We have been in mankind's history, even as you have been. We, not the primitive Egyptians, build the great Cheops Pyramid, though they copied it with theirs. It is our marker to show the slow passing of time in a swifter scale. Each century the light of a fixed star moves a little along the scale at the back of a passageway. 'Fixed' star! Even the stars have moved, in our time!

"We caused the Noachin Flood, inadvertently, when we split once solid Gibraltar, filling the Mediterranean basin. For a time, during the great Grecian Era, we mingled somewhat with mortals, giving rise to their famous mythology. Our science deeds and seeming miracles, in various rôles, impressed them as the doings of a race of gods.

"And other things we have done. But these things, too, have ceased to interest us. In the past three thousand years we have done little but sigh and wonder if perhaps suicide would not be preferable to the slow poison of ennui. Even your rise two thousand years ago, Anton York, and your exploits of a thousand years ago, failed to intrigue us more than casually. We have utterly lost that strange but important human ability to care about anything!"

SUDDENLY York and Vera saw in their eyes the haunting lassitude of spirit that obsessed them. They were three incredibly old men—despite their young bodies—who had tasted life to the full and could no longer wring out one drop of stimulation. Mentally, they had already died.

ANTON YORK drew a long breath. At times he, too, even in his comparatively short two thousand years of existence, had wondered how long it would be before there would be nothing new to him—nothing further to lure his interest. Then he shook off the dull spell. One must not think of such things too much.

"From what land do you come, preceding recorded human history?" he asked, anticipating the answer.

"Atlantis," was the reply from the Three Eternals. "At that time Atlantis in the Atlantic Ocean and Lemuria in the Pacific were two great continents. Their civilizations touched heights never since exceeded. But they warred incessantly, and it was to lead to their mutual destruction.

"We three had been great scientists of that time. We discovered the secret of immortality, partook of it. Also conquering gravity, as did you, we went out into space for a time. When we came back, Atlantis and Mu lay under the oceans, and new lands had risen! Atlantis, in trying to undermine Mu with giant atomic-power machines, touched off a fault in Earth's crust, leading to world-wide holocaust.

"Thus, we three found ourselves orphaned from the world we had known. Our magnificent cities and glorious monuments lay under the ocean ooze. Strangely, that is the only thing that can now stir our hearts—thought of that ancient glory. A nostalgia that has survived twenty thousand years—and has grown stronger!"

York's nerves became tense.

"Yes?" he prompted.

A slight glow came into their faces as their spokesman went on. His psychic voice vibrated strongly.

"Thus we have decided to bring up our homeland of Atlantis, from its briny grave. Resurrect it, rehabilitate it, restore some semblance of its former grandeur. A long, tedious task, perhaps, but one we will truly enjoy." A fanatic light came into his eyes. "Sentimentality is the one human emotion we have not lost. We cherish a memory. It can be molded into reality. Atlantis must rise again!"

York and his wife looked at one another. That accounted for the bubbles over the South Atlantic. The ocean floor ooze, disturbed after long ages of quiescence, was giving up its occluded gases.

"How is it being done?" queried York, feigning deep curiosity, and nothing more.

"It is simple. We made a long study of Earth's crust, through seismological data. Any major geologic disturbance is linked to others. They form a chain. By setting them off in the proper order, any desired end result can be obtained. Exploding a certain small island in the Atlantic, we started waves of concussion in the thin, unstable crust. The slow, irresistible forces existing in the plastic layer beneath the crust were awakened. They will culminate by pushing the floor of the Atlantic and Pacific up above water level.

"This was started ten years ago. Perhaps in another century or so, the process will be completed. We are in no hurry. Then we

will begin our great reconstruction of Atlantean glory!"

"Can the process be stopped?" asked York, wondering if they would answer.

It may have been a mocking light that shone from their eyes as the reply came.

"Yes, by a suitable counter wave in the crust, to neutralize the first."

YORK snapped himself alert. He had heard all he wanted to hear. His telepathic radiations almost crackled as he said:

"And in the meantime, Earth's billions of people will go to their doom!"

"That is unfortunate." The Eternal shrugged. "However, some few will be chosen and saved to repopulate the new Atlantis. The rest must die simply because they will have no place in our new world. All the old lands will not sink, but for a time, as the process approaches its climax, there will be violent earthquakes and storms that will decimate most of them."

"It's the most cold-blooded scheme ever thought of by man!" raged York, his self-control breaking. "You must not go on with it!"

The Three Eternals in the visi-screen looked annoyed, then faintly amused.

"Who will stop us? You?"

"Yes!" returned York grimly. "I give you fair warning. I have a weapon whose activity you have probably seen wielded. In ten seconds, if you do not agree to reverse your geological process, I'll use it!"

"You are brave, Anton York, but foolishly so," the answer came back imperturbably. "We have illimitable power, we three."

"One!" interposed York, in answer.

With his protective screen on full power, York trained his weapon's snout at the marble building and counted tensely. The Eternal triumvirate sat there disdainfully, as though unaware of danger. One of them idly reached over to a panel and flipped a small switch. York's clammy finger tightened at the count of nine, squeezed at ten.

The ravening burst of energy that sprang from his gun expended itself harmlessly against an invisible screen surrounding the marble temple. Beyond it, rocks and trees shriveled into a soot-black mist that drifted upward like vagrant smoke. The weapon's force was that of subgamma and ultra-sound waves, able to shatter molecules to black shreds.

York desperately rammed on full power, never before used, and left it for a full minute. The opposing screen did not weaken in the slightest. York gasped. Even his own screen, he knew, would not have withstood that hell fury for that long. The Three Eternals, in the visi-screen, smiled scoffingly.

Sensing his own danger, York leaped for the controls. But at the same moment, some paralyzing force gripped his body, held him rigid. One of the Eternals was manipulating controls on his panel.

"Rash one!" came the telepathic taunt. "We have more command of natural forces that you could dream of! We are masters of twenty thousand years of science. Anton York, you have declared war on us. We should annihilate you on the spot, as we could easily do. But it would be beneath our dignity to destroy that which cannot harm us. Therefore, go with your life. But never again test our patience and strength!"

ANTON YORK'S ship eased off the ground, in the grip of some intangible force. Suddenly it was flung upward, as though by a Titan's hand. York and Vera were thrown into a heap in a corner of their cabin, but the paralysis left them. York grasped a hand rail, half dragged himself toward the pilot board and quickly righted the ship. Then he helped Vera to her feet.

York said nothing but his face burned with humiliation. They had been cast away as though they had been vermin. He looked down as the ship floated at even keel. The shimmering mist lay over the hollow, hiding its three eternal inhabitants. Hiding a menace supreme!

York knew it was no use to continue aggression openly. His gamma-sonic weapon —never before unsuccessful—had failed to pierce the defense of the Three Immortals. Even the furies of atomic power were a lesser force. The Three were impregnable. If York was a god in his powers, they were super-gods.

"What can we do against them?" wailed Vera. "Against twenty thousand years of science?"

York sent his ship away from Mount Olympus. He did not attempt to answer a question that had no immediate answer. But a bleak look had come into his eyes—the reflection of a super-mind wrestling with a super-problem.

CHAPTER V

Far Beneath Earth's Surface

DURING the next year, the crews and passengers of various ocean liners and huge transoceanic aircraft sighted York's globular ship, here and there. At times it hovered motionlessly over water. At other times over islands. Several times it was seen at the docks of Sol City, picking up certain apparatus that the council had had manufactured at York's orders. No one knew, not even the councillors, what the instruments were for.

Inside the ship, York labored as only a man with a set idea can work. The instruments were ultra-divining rods. By an intricate sonic principle, they were able to make clear the structure of inner Earth, as the X-ray reveals a skeleton. York could send down a sound wave that would reflect, hours later, from the hot core of Earth.

York finally accumulated a sheaf of papers scrawled with condensed mathematical equations and notes. Salted throughout the manuscript were dynamical formulae involving mountain-sized masses of land, water and air. Trembling, he fingered the pages.

"No time to make them look pretty," he murmured to Vera. "But I have it almost completely worked out. With my seismological observations of the past year to go

Like a glowing diamond the asteroid plummeted for the island

by, the Earth as a whole has been moved into the laboratory. I have dealt with this planet as though it were a compound in a test tube, or a slide under a microscope. With these Earth dynamics, I can predict the result of any major geological phenomenon, just as the Three Eternals worked it out. Look!"

He spread out a large flat map of the world and put his pencil tip on a spot in the Atlantic Ocean.

"An island existed here ten years ago. The Three Eternals knew it to be the key to their aim. They exploded it. The tremendous ground waves this started touched off certain strains in Earth's crust. Atlantis and Mu, long buried, began rising. The other lands are slowly sinking. But I can stop it!"

York's pencil moved to the Pacific, circling a dozen tiny atolls among the Polynesian group.

"The key lies somewhere here," he explained. "The antidote to their poison. The explosion of one of these islands will send out ground waves setting off related, but opposing strains. There will be a cancelation of effects. In a decade or less, Earth will quiet down with no more than a few coasts undermined. Atlantis and Mu will *not* rise!"

"All humanity, now and in the future, will owe you its life!" cried Vera, happy in his success. Suddenly a deep horror flooded her eyes. "But the Three Eternals will destroy you—us—for it, Tony! What is to prevent them? *Can* they destroy us, Tony, or—"

To Vera it was a strange thought that anyone or anything could destroy them. For had they not lived two thousand years?

York nodded somberly. "They can!" He clamped his teeth together firmly. "But first we'll finish our job, and then think of that. I still have to determine exactly which island to demolish."

A FEW hours later their ship hovered over Southern Pacific waters. Only a few uninhabited islands speckled the vast reaches of ocean. York carried on his subsurface probings, but finally gave a baffled grunt.

"I've narrowed the field down to three of these islands," he mused, "but I can't seem to go any further with the data, from here. I have to be dead sure I explode the right island. If I hit the wrong one, the result might be just as catastrophic as what the Three Eternals started."

He thought a moment. "Vera, there's only one way. These measurements involve the strains *within* Earth's crust. I must map the strains at first hand. I must go down there, in person. Down miles and miles below the ocean, to where the greater ocean of subsea plasma fumes." His brow wrinkled thoughtfully, as the mind behind already began shaping a machine unknown

to Earthly science. "No mines or man-made submarines go down that far, of course. I'll have an Earth-boring ship made—a mechanical mole. I'll—"

Vera was quick to sense something in her husband's words.

"You're using too many 'I's' Tony. You're not going down without me!"

"It's liable to be very dangerous, Vera. World-shattering forces lie down there." Seeing the set of her jaw, he tried a humorous tack. "Why don't you visit your aunt for a few weeks?"

But instead of smiling, her eyes became a little sad. She had no aunt, or relatives at all from that long-gone day of their birth. Neither had York.

"We even have no descendants," she murmured, for that had been the price of immortality. "No one on this Earth we can remotely call kin. Tony, don't you see? If I stayed up here and you, going below, never came back, I'd be more lonely than the loneliest meteor in space!"

Within another year, the precision factories of the Forty-first Century industry had turned out the parts from York's blueprints. Time, of which they had a plethora, meant nothing to the eternal pair as they superintended the construction.

The mechanical mole took shape as a segmented cylinder of fused, transparent diamond—York's secret—buttressed with steel of colossal strength. Its front end held the fanwise jets of York's gamma-sonic force, for converting solid matter to impalpable dust. The technicians who assembled the machine understood little of what they made, further than that it could possibly plow through anything short of neutronium.

The completed vehicle was shipped to one of the Polynesian Islands, via barge dragged by the world's largest freight ship, and here York dismissed all attendants. Alone with Vera, he drew a breath.

"I've been wondering all this time if the Three Eternals would find out and interfere in some way," he confided, "despite the secrecy with which it was done."

Vera shuddered, as she always did at mention of the Three.

"They're like three vultures, waiting, waiting—"

York waved a hand. "Take a last look at the Sun, dear. We may not see it again for weeks!"

Then he led the way into the craft, sealing its pneumatic hatch. An hour later, after carefully checking the supplies of tanked air, food, water, and his many instruments, he started the motor.

THE titanic energies of gravity warped into his coils, spraying disintegrative forces from the under nose jets. The nose of the ship dived into the pit formed and like a great worm, it bored downward, roaring powerfully. In seconds, the segmented tail of the ship had vanished beneath the surface. When it had penetrated through top soil and loose ground, it struck bed-rock and there the rate of boring settled to an average of eight hundred feet an hour.

Swirls of black soot shot back from the rock-eating nose, so that they saw little of their course into Earth's skin. It was a bumpy ride, and vibration shook them so violently that they clamped their teeth tight to keep them from rattling like castanets. Each hour York stopped the ship and let their aching bodies recuperate somewhat.

Down and down the mechanical mole drilled, meeting no material obstacle that its blasting rays could not whiff to unresistant dust. Once their rate slowed by half, as they went through a hard-grained granitic stratum, packed densely by the crushing weight overhead.

York did not fear collapse of the tunnel about them. The braced diamond-walls of the ship would have survived the weight of Mount Everest, balanced on its tip, on each square inch of surface.

A week later, York stopped the ship when his gravity instruments read twenty-five miles below Earth's sea level. For three days he and Vera rested their bruised bodies and jangled nerves.

"Well," said York then, "here we are, twenty-five miles down, deeper than man has ever been before within the Earth he lives upon like"—he thought of an appropriate metaphor—"like bacteria swarming about a marble."

With Vera's skilled help, York made tests of temperature, pressure, density of the solid rock about them, with instruments that extended out of walled pockets in the hull. Most important of all, he measured the strain imposed by the mighty masses of rock above, and the pressing hot core of Earth below. The figures represented leashed forces whose unbinding would have buckled Earth's crust like a toasted apple skin.

"They are ordinarily in balance, these brute forces," said York. "The Three Eternals have unsettled them to the extent of raising two continents and lowering the rest. We have to restore the balance."

A week later, he again started the motor and drilled downward.

"My answer doesn't lie here," he decided. "We'll have to penetrate almost fifty miles down, right through the crust to the barysphere. It is semi-fluid and hot. We'll have to be very careful."

Vera knew without saying that they were risking their lives. But so they had many times before, out in space. They were calm in the thought that if they went, they would go together. York was glad now that Vera had insisted on coming along.

AT a depth under Earth of forty-five miles, York again halted. Strangely, the temperature was not much greater here than it had been at twenty-five miles. In fact, not much more than man's deepest mines.

"Earth's skin is a good conductor of heat," York explained for his own satisfaction. "And brings most of it directly to the surface, which accounts for volcanic action, hot springs, and the non-freezing of the sunless ocean bottoms."

Slowly he dictated a mass of measurement data to Vera, using his instruments. Hourly, he became more excited. Finally, a day later, he was jubilant.

"I have it now, Vera!" he cried. "The subplasma stresses have a node, a point of concentration, right here! It runs as a straight line up to the island next to the one we bored down into. When we destroy that island, counter waves in the crust will cancel those started by the Three Eternals and then—"

"Tony!" It was a sharp cry from Vera. "Tony, I feel strange! I feel as though someone were near us—telepathy—"

"Nonsense!" snapped York, slightly annoyed. "Who could be forty-five miles under the surface?" He started. "Except the Three—"

"Eternal Three!" came the distinct telepathic message, mockingly.

And at that moment, one entire side of the tunnel in which their ship rested dissolved away. A craft lay revealed beyond. It was segmented, like theirs, but larger and with a hull of some clear, greenish material through which were plainly visible the three leadenly-calm, almost unhuman features of the three dwellers of Mount Olympus!

CHAPTER VI

Buried Alive!

YORK felt the alarmed pumping of Vera's heart, her body pressed against his, and his own pulse raced. Fool, that he hadn't thought of bringing down a weapon with him! But even that, he reflected with sagging spirit, would not have helped, against the impregnable Three.

"Anton York," came the telepathic voice, heavy with threat from the other Earth-boring ship, "you have signed your own death warrant. We have been picking up your conscious thoughts, with certain long-range psychic instruments, ever since you left us, at Mount Olympus. We detected that you were trying to upset our plans. We did not think you would succeed in finding the necessary data. But when you dived underneath the Earth, we followed in the mechanical mole ship we used for our measurements twelve years ago. As a scientist you are seemingly a little more adept than we thought."

The Eternals paused as though to give the ironic compliment full play.

"So adept that we must now destroy you. There cannot be two masters of Earth!"

"I do not wish to master Earth!" remonstrated York. "Only save it!" He tried pleading. "Think once, what you are doing—murdering ten billion people! Even if you live to the end of eternity, your conscience could never be free of that stigma!"

"You are an idealist, Anton York," responded the implacable trio. "We are realists. The present race and civilization do not deserve continuance. They are cluttered with traditions, superstitions, periodic setbacks of their own devising. Scarcely three centuries ago, there was again a world-wide 'depression,' accompanied by needless famine, rioting and maladjustment of affairs. Civilization fell back as it has so many times."

"But it climbs steadily!" reminded York.

"When we have raised Atlantis and Mu," the voice went on, ignoring his remark, "we will people them with a new race, set in a super-civilization, like a precious stone glittering in a setting of purest gold."

"And in ten years there will be bickering, struggle for power, and anarchy," predicted York quickly. "You are the idealists, so divorced from your former life that you do not realize the fundamental rule of life—experience! Your new civilization, started at the topmost stage, would collapse into the hollow sands of its non-existent foundations."

For the first time, a trace of anger came from the Eternals, as though their pride had been pricked by this calm, searching analysis.

"Cease, fool! You are to die. But one thing we wish to learn from you before you go—the secret of your gamma-sonic weapon. Though it did not destroy us, and though we have equal forces, we wish to add it to our knowledge. Speak!"

York's silence was stinging.

"Very well," resumed the Eternals' spokesman. "We will get it anyway. In advance, knowing your nature, we've planned how. You will be left to die, in this cavern, without your ship. Without a single implement with which to dig—or commit suicide. You will go insane, before death by asphyxiation. In that condition, your mind will automatically throw off all its thoughts, willed and unwilled. Back in our laboratory at Mount Olympus, an instrument is set to pick up the mental record, and at our leisure we will extract from it the gamma-sonic data. Thus you will die and serve us at the same time."

THERE was no fiendish note in the quiet exposition of their hideous plan. It was a cold, passionless scheme, in which human feeling meant nothing. York doubted that they knew the meaning of love, anger, hate, mercy, or any emotion. Twenty thousand years of living had drained them dry of all but crystallized intellect.

A few minutes later, York and Vera stood alone in the cavern that had been formed by the two mechanical moles. Their ship was gone, disintegrated before their eyes by a cold beam which caused matter to fall into rotting grains. York and Vera had previously been carried out of the ship, under the Eternals' paralysis ray. Then the Three had released one tank of oxygen into the space, lest they die too soon. Finally, their ship had left, spraying a heat ray behind it that fused its own trail, as the Eternals had fused off the tunnel made by York's ship.

"This is our end, Tony!" whispered Vera, huddling close to him. "Dying like trapped rats, forty-five miles under Earth's surface, in a sealed pocket of rock. But we'll fool them, Tony, in one thing. We won't go insane. We'll talk over our life—two thousand years of it. It's been glorious. We'll die in peace!"

York kissed her tenderly for her bravery and they talked. They renewed stirring memories of their sojourn in space, and of their last two visitations to Earth. But with-

in an hour their voices faltered and their nerves shrieked.

They could see each other by weird radioactive glow from the surrounding rock. It was more hellish than darkness would have been. Aching silence greeted every pause in their speech. The excessive warmth began to torture their bodies, unrelieved by a breath of current in the confined air.

They were buried alive! That corrosive thought ate into their enforced resignation.

Vera began to babble aimlessly, her eyes wild. York fought back the darkening cloud of madness. Was there no escape? They had no slightest tool, implement, or material object other than their clothing and their bodies.

No escape! They had not even a spoon with which to start digging, useless as that would have been with forty-five miles of stone to penetrate. York had the inane thought for a moment that they had fingernails, something to scratch with—madness!

"One thing I have," he remembered, without the slightest surge of hope. "The brain-wave instrument within my left ear, with which I commanded the councilors. The Three Eternals missed it, or disdained it. But what good is it? I can command minds with it, but stone is mindless."

And soon they, too, would be as mindless as their prisoning walls.

"I can hear your thoughts," Vera mumbled, laughing hysterically. "You won't give up, Tony, but how foolish. You're trying to think a way out—think a way out—think a way out—"

Her voice began to repeat like a cracked phonograph record, as her mind teetered.

"Think a way out!" echoed York, his mind clicking. Suddenly he grabbed Vera, shaking her violently. "Vera, maybe that's it! My brain-wave concentrator projects telekinetic forces. With it, I made other minds cause their bodies to act, move. Perhaps, without the relay minds between, I can use telekinesis to make movement—even of stone!"

"Move stone?" Vera said sepulchrally, in a moment of calm. "But that would take energy, much more than to cause mobile human machines to move, as with the councilors. Energy, lots of it, to move tons of stone over which are tons more—" Her voice broke. "Tony, why do we even think of it? False hopes are just added torture."

"Energy," mumbled York defeatedly. "More energy than our bodies contain, if we could use even that."

HE ground the thought of telekinesis out of his mind and joined in Vera's resignation.

"Die in peace—we must," Vera murmured, straining against another attack of hysteria.

"It's a little ironic, isn't it?" mused York. "Two thousand years of science at my fingertips, gathered in thirty lifetimes of thought and research. And yet, without tools, I'm as helpless as any single-lived man would be, in this same dilemma. A thousand years ago, in a great ship, I moved planets. Today, stripped of implements, I'm no better than a worm."

Something probed into his mind. He had felt it many times before in the past two years, without realizing it had been the Three Eternals, spying out his thoughts.

"Still sane?" came the cold, blunt psychic voice of one of the Eternals, rather faintly. "You have remarkable fortitude, Anton York. But you will succumb, even as we might, be it admitted. We are halfway to the surface. When we reach it, you will be babbling, spilling your mind into our recorders." The voice clicked off.

Vera shrieked. She had heard too.

"Don't, Vera!" soothed York. "Don't you see? They did that to drive us to insanity more quickly. Let's remember our resolve—to die in peace."

"If we only could!" she moaned. "But it's such torture. And my skin, itching—that radioactive emanation—"

York felt it too, a bothersome tingling on his skin, to add to their discomfort. It was caused by radium in the rock.

York leaped up.

"Radium—energy!" he cried. "Energy for the telekinesis! There it is, all around us! Vera, I'm going to try it. My brain wave should be able to utilize this energy as well as that of a human body."

He offered up a prayer to all the gods in the Universe that he was right.

Vera, sobered by hope, watched him. York stood facing one wall, his face drawn into a pucker of fierce concentration. The same intangible force with which he had impelled the councilors to sit down and listen to him now sprang against the rock. York had never fully tested the mental ray's possibilities. Could he command matter to fall away before him?

New beads of sweat joined those from the heat, on his brow. Nothing visible, nothing of which he even knew the formula, hurtled against adamant rock. Radioactive energy lay pulsing there. Could he tap it, mold it to his use, with nothing more than pure mentality?

Aching minutes passed. Then slowly the rock began to slough away into a depression. There was a rustle, as of billions of crystals rubbing against one another, changing position.

Matter obediently aligned itself in a circular wall, forming a tunnel.

York walked forward, step by step, like a god before whom nothing could stand. Foot by foot, the tunnel shaped itself.

"Follow me!" York said to Vera, in clipped phrases, without turning his head. "It's working — mind over matter—telekinesis, energized by radium."

YORK fashioned his mind-wrought tunnel on the steepest upgrade they could climb. It was no use to bore to the ship's tunnel, as that rose almost perpendicularly. He would have to push on at a slant, through perhaps a hundred miles of rock, before reaching the Sun. A problem arose—that of thinning air, as the tunnel extended. York stopped to command oxygen to spring out of the rock. It did, in gusty abundance.

"Chemical telekinesis!" he said to Vera. "Even the electrons and protons shape new

atoms, under this mental force. Vera, this is a true miracle of science!"

He went on, shaping his tunnel. The lack of radium in certain strata, later, did not stop York, for his mind had subtly found the way to extract even the locked energy in non-radioactive rock. In foresight, he made the tunnel oval-shaped, distributing the tremendous pressures in the rock around Nature's sturdiest geometrical design. The unbolstered cavern held, for the same reason that a fragile-shelled egg can resist terrific pressure.

Back of them, a while later, they heard a sudden rumble, as their former prison space collapsed. York stopped, facing Vera.

"Quick!" he said, in inspiration. "Will your broadcast thoughts blank. Let the Three Eternals think we died!"

For an hour they remained quiet. They could feel the strange mental probe darting about their closed minds—the Three Eternals trying to discover some mental sign of life from their recent prisoners. York cautioned Vera to hold out, even when the tunnel back of them progressively collapsed.

At last the psychic finger left. The Eternals were convinced of their deaths!

CHAPTER VII

The Ultimate in Forces

HOPEFUL now of true escape, York forged ahead. His mental chisel, powered by mighty demons of energy, forced the creaking, groaning rock aside, against blind, brute gravity. When his mind began to reel, drained of energy, he transferred his brain wave concentrator into Vera's ear. Her progress in forming the tunnel was little slower than his.

Later, when food and water became necessity, York commanded these. Water dripped from the rock overhead, into their mouths. Food, though a more stubborn problem, was solved when York dug up from memory the exact chemical formula of starches, proteins and sugars, which he had determined as an esoteric research, centuries before. At command, the pliant rock molecules gathered into globules of these nutritious compounds and fell into their hands.

"It's so incredible!" murmured Vera, munching, as though unable to believe all this had happened.

"The tool of mentality!" responded York. "I've hit upon it by accident. It is probably the ultimate in forces, if it is fully developed."

Some hours later, when they had progressed miles, York almost fell forward on his face. His tunnel had broken through into a large chamber. They stepped forward and saw, in the weird glow of radioactive walls, a gigantic ovoid cavern, its walls and ceiling braced with ten-foot-square ribs of metal.

"Man-made!" whispered Vera in awe, her voice reverberating back in amplified echoes. She sniffed. "Breathable air, but musty. The place seems old—terribly old!"

"I think I know what this must be!" cried York, eyes lighting. "Remember the Three Eternals' story—Atlantis undermining Mu, in their war? This must have been an underground headquarters, from which the Atlantides drilled upward for their frightful task!"

Though they had seen many strange things, in the worlds of space, none struck them with more eerie wonder than this relic of an ancient folly on their own world.

Nothing remained in the chamber of twenty thousand years before save the metal ribbing which had withstood subterranean pressures for an age. Two great metal doors once leading the way in and out, still held, though by now masses of rock must press against them. The Atlantides had built well.

Yes, one thing remained, they saw. An enormous square block of metal squatted in the exact center of the floor, of no discernible purpose. York and Vera walked past it, on their way to start their new tunnel in the opposite wall.

Vera stopped abruptly, her face shocked. Slowly she turned this way and that, finally fastening her eyes on the metal block as though hypnotized.

"Tony, I heard a telepathic voice—from within this metal block!"

York, at first skeptical, turned back, knowing his wife was more sensitive to faint impulses than he was. Standing close to the side of the block, concentrating, they seemed to hear a dim voice. It was an inarticulate psychic mumble, exactly as though some one were day-dreaming.

"Someone is in there!" gasped York, walking around the block to find it solid metal on all sides, and at the top.

Finally he stood back, on straddled legs, and fixed his eyes on the metal. A depression formed, matter sloughed away, as his telekinetic beam ate inward. It was York, the scientist who did this, unable to pass by the mystery of a mind voice from within a metal block.

Suddenly there was no more reaction. His mental ray had struck something it could not penetrate, halfway in. Then they heard strange stirrings, and the psychic mumble clicked off. A dim form crept out of the opening York had made. Vera trembled and slipped her hand in his. What unbelievable Thing, imprisoned in metal, had survived—how long—and was coming out?

"A robot!" breathed York, when it stood clear.

It was obviously built in the image of man, but grotesquely disproportioned. Its body, though metallic-looking, seemed to be as flexible as rubber. Its faceless head bore two gleaming eye mirrors over which shutters blinked rapidly, as though even the dim glow of the cavern blinded it after total darkness.

It looked around slowly, with a queer air of bewilderment. Finally its eyes turned to them.

"No, not entirely a robot," it telepathized clearly, but haltingly. "I have a human brain within my skull-case. My name is Kaligor. Now tell me, what—what world is this?"

"Earth!" returned York, surprised. "What else could it be? You are from Atlantis, or perhaps Mu, Kaligor?"

"Atlantis? Mu?" The telepathic voice

was uncertain. "Yes, Mu, of course. Now I remember! You must forgive my slowness. I have been buried in that block of metal for a long time—since the sinking of Atlantis and Mu. How long is that?"

"Twenty thousand years!" breathed York.

"Only twenty thousand years?" The man-robot seemed astonished. "I had thought it to be much longer—almost eternity!"

York and Vera looked at each other. Before, after only one hour, they had felt themselves going mad. How had this mind, human though metal-housed, survived two hundred centuries!

Kaligor caught their amazement.

"It is a long, queer story," he vouched. "I nearly did go mad, in the first few hours. Then I took hold of myself and saw that I could save sanity only by rigid mental discipline. There was only one answer—escape fantasies of my own devising. I must have some one thing, a complicated path, along which my thoughts could wind slowly. In those twenty thousand years I have devised, mentally, an entire new Universe! In a framework of six-dimensional geometry!"

He paused, then went on. "I meticulously thought out each separate sun, its weight, size, brilliance, spectrum, and so on. Finishing this, possibly within a century, I took one particular sun, pictured a mythical system of planets around it, and worked out all the elaborate details of their orbits, satellites, eclipses, and such. Still I found I must go on!"

"You hoped for rescue all that time!" cried York. "For twenty thousand years?"

Surely, in all eternity, there had never been a longer wait!

"I've been justified, haven't I?" returned the robot-mind, with grim lightness. "Since you stand before me, my rescuers! Ah, but how slow-footed was time! I dared not stop building my fantasy world. At that moment I would go insane, realizing my hopeless predicament. To get into greater detail, consuming more time, I peopled one of the worlds with intelligent beings, far different from humans. I devised their complete biological background, to the last cell.

"Sometimes, for what must have been days, I would wrestle with one single problem—for instance, the number of blood vessels in an inner organ. These intelligent beings, though their appearance would strike you with horror, are almost as real to me as you two now! In fact—"

He broke off, began again, his telepathic voice only now beginning to smooth its first halting pace.

"I had these imaginary beings—Wolkians, I called them—war with one another, explore their world, trade, and all the other activities of a busy civilization. But still time hung endlessly before me—perhaps all eternity! So I conjured up single characters, in my dream world, and followed their lives from birth to death. I sketched out thereafter dozens of individual histories in complete detail. Some of my creations I grew to hate; some to love. There was brave Mirbel, and lovely Binti, for whom he fought—"

Kaligor's psychic voice trailed away into an inarticulate mumble again. He started suddenly.

"But you would not understand," he resumed, "how real these children of my brain are to me. On and on I spun my formless dream, to keep that crushing thought of my rockbound prison, from my conscious thoughts. I have lived a thousand lives, adventures, dreams. I am even now half wondering if this may not be part of my dream!"

"No, this is real." York smiled, but at the same time realizing a character in Kaligor's dream might say the same thing.

And in that way had Kaligor kept from going mad.

HE shook himself suddenly, as though throwing off the last shreds of his age-long dream.

"Who are you?" he asked. "How did you happen to come to this forgotten chamber?"

York told their story. At mention of the Three Eternals, Kaligor started and seemed to listen with rapt interest.

"The Three Eternals!" he burst out, when York had finished. "They are the same three who imprisoned me here! It came about in this way. I am of Mu, not Atlantis. I discovered the life-elixir, independently, partook of it, and in my utter zeal, decided to house my already immortal brain in an indestructible body, so that even accidental death could not claim my life. I would live forever! Ah, it was a foolish aim, not knowing at the time how palling life can become."

For a moment Kaligor radiated the same ultra ennui of the Three Eternals. York and Vera realized that perhaps some day they too would long for escape.

Kaligor went on. "We had skilled surgeons in our civilization, and one of these I had transfer my living, immortal brain into this robot housing. I had previously devised a solution surrounding my brain that drew energy from space itself, which pervades all things. I had spent two centuries constructing my robot body. It is not metal, as it appears to your eye. It is not matter at all, for matter can be destroyed. I wanted something absolutely indestructible. This body of mine is made of—what shall I call it?—interwoven energy. A sort of fibroid cloth of fundamental warped space time. When you destroy an atom, what is left? Its energy, which cannot be destroyed—ever. Of this is my body made."

York faintly understood. "I see why my brain wave stopped so suddenly when it struck your form. I was commanding pure energy to vanish, with pure energy. A figure telling its mirror image to begone!"

Kaligor waved a stumpy hand, in dismissal and went on.

"Thus finally and truly immortal, I began to think of the future. Plans of leading Mu's civilization to astounding heights formed. And then, before I could begin, Mu crashed down into the sea, in that Titanic struggle for mastery with Atlantis, our bitter enemy.

"Tons of masonry fell on me, with no effect, of course. I found myself at the bottom of the sea, eventually, all my people drowned, murdered. Walking over the sea

bottom to the shores of Atlantis, filled with blind horror, I was prepared to wreak vengeance. But Atlantis went down of itself, and civilization was done!"

His psychic tones were dull. "I must have sat on a mountain top, overlooking the broad seas that covered Mu, for a century, brooding, thinking I was the only human mind alive. But one day, in this newly arisen continent, I saw human forms. Some had survived! I questioned them. Though half savage, and the sinking of Mu and Atlantis already a legend to them, I found they were descendants of Muan survivors. My own people! My spirits sang and I began teaching them, building a new Muan civilization in place of the old."

He paused, his thoughts darkening. "Then the Three Eternals came. I met them for the first time. They had been in space, as they told you, and had come back to find their land and mine in limbo. Being Atlantides, they hated the thought of Muans inheriting the new world. We battled. I could not vanquish them, without weapons, nor could they destroy me, though they blasted me with every hellish force of their devising.

"At last, chaining me, they took me down to this chamber, buried me forty miles below Earth's surface in a solid, metal block, knowing that as long as Earth existed, I would live and think and never be free. Even insane, I could not die! Their last words to me were that they were going above to hunt down the Mu-descended savages. Every last one. Rather an Earth peopled only by dumb animals than Muans, was their bitter text."

"They obviously failed." York smiled grimly. "Since human life went on and civilization rose again, in time—Egypt, Sumeria, Maya, and so on."

Kaligor's bright mirror eyes looked at them strangely.

"And you, Anton York, are of my race. We have a bond between us, linking us across an age of time. And we have a common enemy,—the Three Eternals. You can see what their present plan means—to destroy once and for all the second Muan race and civilization. They will be forced to use Muan stock in their proposed civilization, but inculcated with the ancient Atlantide ideology, which was ever a belief in rule of the many by the favored few. We of Mu believed always in communal cooperation."

York nodded.

"We will go to the surface and fight the Three Eternals," he said, glad to have an ally of such merit. "At present, they think we are dead and—"

York stopped short.

Vera gave a vocal cry, feeling the delicate mental probe of the Three in her femininely sensitive brain.

In a split second of time, before the probe had focused, she warned her husband and Kaligor to close their minds.

York commended her with his eyes, and they forced their minds in a telepathic short circuit.

Kaligor had caught on instantly, and likewise stood mentally inert.

CHAPTER VIII

Pure Energy Against Energy

VERA heaved a sigh an hour later. The probe had gone.

"Lead the way," Kaligor said to York. "Up to the surface world, with your brain wave excavator."

It took them a month, York and Vera alternately forming the tunnel slanting upward. They became skilled in producing, food, water and air, when needed. Kaligor stalked after them silently, needing none of these necessities of life. Deathless he truly was.

As they neared the surface, he betrayed increasing excitement. To see the Sun again, the bustle of life, after twenty thousand years of caged dreams! At times, however, Kaligor seemed wrapped in a mental fog. The artificial vocal cords with which he was equipped murmured his ancient tongue. York and Vera caught the tailings of their mental origins—brief flashes of a strange, incredible Universe, peopled with non-existent beings!

Once the robot-bodied man stopped, confused, and it was an hour before York could convince him it was Earth, and not the dream stuff of Wolkia. Kaligor shook his head sadly.

"I live in two worlds," he murmured. "I will never be sure which is real! Too long, too long have I dwelt in that other land!"

Vera was invaluable as their sentinel against discovery by the Three Eternals' periodic, suspicious probings with their long-range mental detector, from their laboratory on Mount Olympus. Her quick mind detected instantly what the two blunter male minds might have noticed seconds too late. At her signals, they locked their minds instantaneously.

They emerged in Australia, as York had carefully planned, for it would have been disaster to burst through into the Pacific's watery bottom. York and Vera breathed free air thankfully, exulting in the warm sunlight that bathed their skins.

Kaligor leaned against a rock, his strangely flexible body trembling. Free at last of his horribly entombed fate, his was the emotion of a resurrected soul, mistakenly buried, a million times intensified.

Their thoughts expanding, free of the underground, they were not on guard.

"The mental probe!" Vera screamed suddenly.

They closed their minds—but a second too late. The mental gimlet became a battering force, trying to pry further. It was all they could do to resist. Kaligor waved silently and began running. After a mile, the force slipped away, off focus.

"Lost the range," panted York. "I don't think they found exactly where we are, in that short time. Only that we're somewhere in Australia. But now they do know we're alive! We must get to my space ship, in Sol City, as soon as possible. At least in that, if they find us, we can fly away."

Constantly on guard now, they set out. In a week they had crossed jungle and desert, reaching a busy seaport. Not disclosing

their identity, passing themselves off as explorers, and Kaligor as a mechanical robot little different from those in use for menial labors, they boarded a strato-liner for Sol City. Lacking the necessary paper "money" —units of work based on a technological system—York employed hypnotism to delude the officials into believing he had paid for the passage.

But such details were trivial in dealing with the world of mortals. The burning thought before them was the coming battle to save civilization from the merciless hands of the Three Eternals.

ARRIVING in Sol City, they hastened to York's space ship, parked in a drome. Once inside, York drew his first easy breath in all those days. He sailed the ship out of the drome, up into the sky. Motioning Vera to the controls, he told her to set a course for the South Pacific, while he set down from memory the data of his subterranean exploration of geological stresses.

"The first thing to do is explode the key island that will counteract the rise of Atlantis and Mu," he said. "After that, we will reckon with the Eternals."

Kaligor nodded, his manner charged with anticipation of soon facing the Three who had thought to bury him for all eternity.

Vera was thoughtful. "I wonder why they haven't probed for us in the past few hours," she murmured quizzically. "Tony, it's ominous."

They knew the answer a few hours later, as they slanted down toward the tiny atoll that must be blasted. There, waiting for them, glinting in the sunlight, was a greenish-hulled ovoid ship.

"The Eternals!" gasped Vera.

York stopped his ship and snapped on his electro-protective screen, expecting immediate battle. But instead, the clear telepathic voice of one of the Three Eternals sounded.

"So, Anton York, you managed to escape your rockbound prison. We again deplore our underestimation of you. How did you do it?"

York was silent.

"No matter," came the unruffled tele-voice. "After detecting you with our mental probe, in Australia, and failing to pick you up again, we came here, knowing this would be your destination. We have one thing to thank you for—you have made things interesting for us, lightening our age-long ennui. If only you could oppose us further, give us a stirring fight, we would be grateful for the diversion!"

Mockery? Not exactly, it came to York. There was a core of sincerity behind the ironic words.

The Eternals went on. "But, of course, you cannot oppose us. Our twenty thousand years of science will crush your two thousand. We—" The psychic voice stiffened a little. "There is a third person, or mind, aboard your ship. Who—"

Kaligor's flexible body had been trembling all this time, listening to the words of his ancient, bitter enemies. Now he took an unnecessary step forward.

"It is I, Kaligor!" boomed out the Muan's tele-voice. "Do you remember me?"

"Kaligor!"

It was a startled chorus from all three Eternals. A moment later a queer ultra-light flicked into the cabin, from the other ship. It moved about and finally centered on the robot. Like a detached eye, it roved up and down his body, and it seemed to express amazed bewilderment.

Finally the Eternals broke their shocked silence.

"Yes, it is you, Kaligor. Our tele-eye shows you on our screen. It cannot lie. You were freed by Anton York?"

TAKING evident delight in the telling, Kaligor briefly recounted his rescue.

"Thus I face you again, Three Eternals, like a ghost from the past!" he challenged.

"Kaligor—with Anton York!" The involuntary thought of one of the Eternals, barely perceptible, was a betrayal, as though the combination struck fear. Then hastily: "But no matter. We are about to destroy your ship, and you, Anton York. Kaligor, though indestructible, you will fall to the bottom of the sea. We will capture you again, seal you at the center of Earth perhaps, where no one will blunder in to set you free. You will lie there, spinning your endless dream further, while up here we will snuff out this Mu-spawn civilization and build the second Atlantide era."

"You are senile, mentally if not physically," taunted Kaligor. "Atlantis, and all it stood for, are things of the past. Muan principles and culture will endure. I, Kaligor, say it and—"

At that moment, the Three Eternals opened fire. A soundless blast of energy sprang against York's electro-screen. The screen held, but succeeding blasts began to send a warning needle higher and higher toward the red danger mark of penetration. One touch of the disintegration beam on the hull and the ship would fall together like a rotten gourd.

York wasted no time firing back, remembering the last encounter where his gamma-sonic weapon had been so ineffective. He fled toward open space, before they brought their paralysis beam to bear.

"Fool!" he cursed himself. "I should have suspected they'd be waiting here. We should have thought of armament first."

Up the ship arrowed. In free space, York tried his best acceleration, but the green ship of the Eternals clung on the trail relentlessly and drew steadily closer. Any principle of super-velocity York had discovered in his two thousand years of research must be known to the Eternals. And more.

"Tony, what can we do?" Vera moaned.

"Kaligor!" York appealed, in turn. "Can you think of anything?"

There was no answer from the robot, slumped in a corner of the cabin.

"Kaligor!" yelled York frantically.

The Muan started, raised his faceless head.

"What? Is that you, Binti? No—no—what am I saying? Her name is Vera York! What is this world? Tell me. I'm confused."

"Earth, Kaligor!" groaned York. "Come

out of your dream world. The Three Eternals—"

A flash of blinding light, as the enemy's dis-ray rammed into their screen, brought Kaligor to full awareness.

"The brain wave, York! Use that. Command their screen to fall away!"

YORK tried it, wondering how he had stupidly failed to think of it himself. Vera took the controls. York stared fixedly out at the enemy ship, concentrating. He threw every ounce of his brain power into the mental command for the Eternals' protective screen to break down, then fired his gamma-sonic weapon.

But the telekinetic force that had molded hard stone like putty failed to crush the super-powerful screen of the Eternals. It was pure energy battling pure energy, again. The only noticeable effect was that the green ship fell back for an instant, as though it had struck something.

York tried again and again, his mind reeled with the draining effort. Each time the enemy ship faltered a little, but its screen held. Staggering, York slipped the brain wave concentrator out of his ear and handed it to Kaligor.

"You try it!" he gasped.

Kaligor held the tiny instrument before his forehead. York and Vera could not see on his featureless face the mental concentration he brought to bear, but the ship of the Eternals bounced back with repeated blows of telekinetic force, a minute later, that exorably.

"Their screen is adamant," said Kaligor. "They'll win out in the end, unless—"

Rapidly, he outlined a plan. York nodded and waited tensely.

CHAPTER IX

"And Then—Annihilation!"

KALIGOR once more faced the oncoming ship, through the port window. York and Vera could almost feel the tremendous mental forces he was concentrating, second by second. Kaligor released a blast of telekinetic force, a minute later, that hurled the green ship back and back until it vanished in the blackness of space.

At the same time, as they had planned, York shot their ship sideward at a prodigious pace. Then, in successive arcs, he warped their course at a random angle to the last position.

"Enough!" barked Kaligor, five minutes later. "Shut off the motor, the screen, every generator—and close your minds!"

Obeying, the three now drifted in a silent, dark ship as inert as any meteor in space. They felt the mental probe of the Eternals, trying to locate them, but an hour later it ceased.

A broadcast telepathic voice rolled over them.

"You have escaped for the time being, Kaligor and Anton York," admitted the Eternals. "But we have won. We will go back to Earth, and set up a headquarters on the very island you would have to destroy, to save the Muan civilization. We will wait, on guard. If you return, we will destroy you. When the ancient lands have arisen, and we have constructed Atlantic civilization, we will search you out, in whatever remote corner of the Universe—for the final reckoning!"

Vera signaled the two men to keep their minds locked, when they were about to relax. Understanding, for it might be a ruse to discover them, they waited. It was not till three hours later that they cautiously opened their minds. No mental probe greeted them.

"They've gone back to Earth," sighed York, "as they said." He went on heavily. "They have won. We know now that we can't penetrate their screen. They can ours, in a longer battle."

"But, Tony, why can't we build a better screen, and find some force to penetrate theirs?" suggested Vera.

York shook his head. "It would take years —centuries! In that time, civilization will be destroyed, the very thing we're trying to save. Don't you see, Vera? The Eternals are eighteen thousand years ahead of us. Ahead of Kaligor, too, for he lay impotent, dreaming, for that long time while they crawled up the scale of science."

"Impotent! Dreaming!" Kaligor gave a mental sigh. "Yes, dreaming. Ah, if I could only use some of the science of my dream world! Mirbel and Binti, that time they fought the triple minds of Kashtal, had a wonderful weapon. . . . But it is no use. Their science was of the six-dimensional Universe, useless in ours. All dream stuff, all, all—"

York and Vera almost pitied him, as he faded away into his dream world again, where all harsh realities could be solved.

"There's only one hope," pondered York. "Developing the telekinetic force. If we make a larger concentrator, one for all three of our minds at once, we might get a large enough blast out of it to smash their screen, instead of just pushing them away. What do you think of that, Kaligor?"

But Kaligor was lost in his dream, and Vera firmly silenced York's half angry shouts to awake him.

"Tony," she said softly, "waking from a beautiful dream is the worst feeling in all the world. Let poor Kaligor break into waking life gradually. He has been twenty thousand years in that other world—only a few days in ours!"

A WEEK later, after a slow, careful cruise lest the Eternals detect them with long-range finders, they landed on an isolated section of the Moon, away from mining outposts.

Despite their grim situation, it amused them to tune in the radio news from the world of mortals.

"A dozen more ships have now docked, with burned-out instruments, and reported the same mysterious occurrence of last week, out in space somewhere between Earth and Moon," said one announcer. "Without warning, loose energy of some sort surged in that area, burning out all radios,

lighting systems, and intership phones. Dr. Emanuel Harper, famous physicist, estimates that some forty-five trillion ergs of energy were expended in a few minutes, at some point thousands of miles away from his particular ship.

"This would be enough energy to light all of Sol City for three thousand years! It was all scattered away in a few minutes. Who or what could do that? Is Anton York out there somewhere? What is he doing? A thousand years ago he moved planets. Is he preparing some similar engineering feat, to again astound mankind?"

Vera smiled wanly. "Another chapter in the mythology of Anton York is writing itself. The truth they would not even believe!"

Pooling their scientific knowledge, Kaligor and York worked out a large-sized brain wave concentrator. In the workshop room of York's ship was every conceivable scientific tool. For raw material they used the molecules of the Lunar terrain, shaping them into any metal or product with applied chemical telekinesis.

They tested the machine one day. All three of them poured a combined mental command into the receiver. With creaks and groans that they felt as vibration through the ship, a nearby Lunar mountain moved back ten feet!

"Remember that old Biblical adage, Vera?" said York, awed himself. "'If ye have faith, ye can move a mountain!'"

York had moved much greater things at one time—whole worlds in fact. But he had used world-moving energies produced through gigantic machines. What they had done now had been done purely through mind, with the veriest of thoughts. And thoughts were limitless in scope.

They could have commanded the mountain to dance away and plunge into space at the speed of light, had they wished. Even so, would this great new force prevail against the ultra-scientific Eternal Three?

They sailed to Earth, boldly now. The Three Eternals had already begun construction of a marble home, like that on Mount Olympus, on the key island in the Pacific. Their green-hulled ship came to meet them. Over the ocean waters they battled.

The Eternals hurled their Jovian charges of energy against York's screen, rapidly wearing it down. Keeping their nerves in check, York, Vera and Kaligor stood before their brain wave projector. At Kaligor's signal, they thrust a common mental command into the receiver.

A measurelessly powerful telekinetic beam leaped for the enemy ship. But nothing happened. Its screen did not buckle, as they had hoped.

And the ship itself did not even budge one inch, where at least it should have been dashed away!

"Failed, didn't it?" came the taunting telepathic voice from the Three Eternals. "We managed to deduce it was telekinetic force with which you escaped last time. We've installed a simple enough counter radiator that split your beam and caused it to flow around our ship."

BEYOND, where the split beam rejoined and angled down to the ocean's broad bosom, water churned madly. A mile-deep hole appeared, clapped together again, and sent a mile-high wall of water rolling toward distant shores. Hours later, several coastal cities of mortal man would be wrecked by the greatest "tidal wave" in history.

"And now," came the frosty announcement, "prepare for death!"

A particularly vicious blast shook York's ship and nearly burst through his screen. York jerked his ship up and away. Flight again! But with no hope this time of escape.

So it seemed. Hounding them, the Eternals' ship prepared to send its final barrage against York's tattered screen. In another moment—annihilation.

But queerly, the Eternals suddenly lost the range. Their ship blundered past, almost striking them, and went on, as though searching. Soon it had lost itself in the curtain of space. York saw then that Kaligor was still standing before the telekinesis projector.

Only now he turned away.

"Hypnosis," he explained wearily, as though it had drained all his mind. "I hypnotized them into the belief that we had suddenly become invisible. Change course quickly, York. They will be back in an instant. It won't work twice."

York, as once before, shifted the ship at random arcs till they were far from their original position. The Eternals did not appear. Safe, for the time being.

They hardly spoke to one another in the next hour, as their ship cruised slowly in space. With the brain wave projector useless against the Eternals, they could think of no other weapon or force to try.

"But we have to do something," said York haggardly. "We can't give up. Kaligor, is there anything—anything—"

Kaligor shrugged wearily and lapsed into his escape world of dreams. York almost envied him and wished that he might dream so pleasantly. But York's dreams, lately, had been nightmares in which the Three Eternals endlessly chased him to the remotest corners of space and time.

Vera smiled at him wanly.

"You must rest, Tony," she admonished gently. "Let's forget about the Three Eternals for awhile. Maybe our minds, fresher, will think of something later. Let's look out at the peaceful stars."

They turned out the cabin lights and sat arm in arm before a wide port, gazing out at the star-powdered vault of the firmament. They talked over their many wanderings in space, trying to forget the maddening menace behind them. Venus gleamed brilliantly among the stars.

"Remember bringing an asteroid to Venus, as its new moon?" murmured Vera. "How happy we were in that accomplishment. So many Earth settlers sighed for moonlight, through the long Venusian nights."

She felt her husband start slightly.

"Vera!" he whispered tensely. "You've given me an idea. Suppose we towed away another asteroid, took it to Earth. Suppose

we gave it a tremendous velocity, and aimed it for the key island. Even the Eternals wouldn't be able to stop trillions of tons of hard rock plunging down without warning upon their heads!"

YORK woke Kaligor, after much mental shouting, and outlined the plan to him.

"Good!" agreed the Muan.

Once more hope went with them as they maneuvered far from Earth's vicinity, out to the barren asteroids. After some search, they singled out a dense little body roughly five miles in diameter. Their ship was no more than a grain of sand beside it, but before long they were nudging it out of its age-old orbit, with the illimitable forces of their telekinetic projector.

Hour by hour it gained velocity, in the long stretch of space toward Earth.

York spent brain-numbing hours over the equations of its course. He had to hit precisely one certain spot on Earth, the while it inexorably continued to revolve and rotate. It took timing to seven decimal places. It was super-ballistics, with the asteroid in the role of a gigantic shell shot from a mythical cannon against a target that moved in the four dimensions of space time.

"And yet," he summed it up. when done, "it's really easier to figure this hundred-million-mile trajectory in space than it would be to aim a cannon shot on Earth for a mere thousand miles. The motions and laws of space are precise, unvarying. Those on Earth are subject to the vagaries of wind, temperature and air density. I think we'll be able to land the asteroid squarely on the island, at a speed of a hundred miles a second."

It took them two weeks to push the asteroid within striking distance. Gradually its velocity had mounted. It had been aimed unerringly to reach Earth's orbit, plunge into its atmosphere, and drop like a great bomb on the island of the Three Eternals.

"It can't fail!" said Kaligor confidently, rechecking York's figures for the third time. "The Eternals will have no warning. The asteroid is too small to shine as a moving star except in the last few minutes. It will light incandescently when it strikes the atmosphere, but a few seconds later it will land. The Eternals will be ground flat into the Earth itself! And at the same time, the island will be cracked apart, reversing the rise of Atlantis. York, it is a splendid plan!"

"I hope it works."

Now that the zero moment approached, York was assailed by doubts. Yet how could the Eternals survive it, this hurling of a world at them?

CHAPTER X

World Hurled at a World

REACHING a point a thousand miles above Earth, York halted his ship. The asteroid plunged on. It vanished from their sight. Then, five seconds later it reappeared, glowing slightly. With each passing second, as it hurtled into the thicknesses of the atmosphere, it brightened.

Like a glowing diamond, it plummeted for the ground—and the island. It had been aimed perfectly.

"Here's a little present for you, Eternals!" sang out Kaligor, moving for the ship's telescope.

It struck!

Watching, they saw it shatter into a shower of sparks, from their perspective, that spattered far over the Pacific Ocean. Dense clouds of steam shot skyward. More than a quadrillion tons of rock had smashed into Earth. The impact was sufficient to affect, by a measurable split second, the rotation of the planet. Earthly astronomers would later notice that, and record the fall of the largest meteorite in history, little suspecting the man-made agency behind it.

York drew a deep breath. That mighty mass had rocketed straight down upon the marble home of the Three Eternals. By no stretch of imagination could they have survived.

"York!"

Kaligor, at the telescope, had given the sharp mental cry.

"The marble building is still intact! The asteroid struck some shell of force over it, broke on that, and the pieces simply slid off into the ocean on all sides!"

He followed this stunning, incredible announcement with an urgent warning.

"Quickly! Lights off, ship unpowered, minds closed! They will be after us in a moment. We're safer here than in trying to outdistance them after detection."

They waited for long hours, minds locked against mental probing, realizing the Eternals would not dare leave their island unless they detected the position of their quarry.

At last, as before, a broadcast telepathic message rustled in their minds.

"Did you think to catch us unawares, Kaligor and Anton York?" scoffed one of the Eternal Three. "We remembered that you had learned to move worlds before, Anton York. We expected you to try this. A trigger-touch dome of force protected the island and our home. Even if you should hurl the Moon down on us, we would shunt it aside. We dealt with world-moving forces long before you! Must we repeat over and over that you are as children to us? Children who must eventually be caught and punished?"

York went to his controls and eased the ship away from Earth, following a regular liner route so that the Eternals' detectors would not single them out.

"Now what's left, Kaligor?" he asked, biting his lip. "What's left to try—and it'll be the last try!"

But Kaligor was sunk in the myths of his mind, in temporary escape from the stark, pressing problem that brought haggard lines to the faces of his two companions.

"Mirbel!" his mind was murmuring, as they had first heard it murmuring from inside the steel block. "Mirbel, is that you? And Binti! I have been to a strange dream world, called—let me think—Earth! Earth,

yes. I dreamed of struggle, futile opposition to super-scientists. But that is impossible, isn't it, Mirbel? I'm the supreme scientist in the Universe! Binti, tell me it was a dream!"

LOSING patience at last, York prodded the bemused Muan.

"Wake up, Kaligor! This is no time to dream. In the name of the Universe, stop mumbling and talking to those two. They're phantoms, figments, myths, dummies—do you understand?"

York was immediately sorry for his outburst. But Kaligor came awake.

"Phantoms! Figments!" he echoed. "Myths, dummies! Yes, you're right."

Suddenly his telepathic contact broke, became a rush of jumbled thought. For a moment York thought he had again dropped into his enchanted spell, but his telepathic voice resumed, now clear, strong.

"Anton York," he said, "what is most important in all this—ourselves or the civilization we are trying to save?"

"Civilization!" returned York without hesitation. "They are our people—yours and mine. They advance, slowly but surely." Firmly he repeated: "The civilization—for what it is to become. It must be preserved, even at the cost of our lives!"

York felt a strange embarrassment, with the last word, as though he had thrown it before the robot's face.

"I cannot die," said Kaligor evenly. "No, but I can sacrifice to an equal extent."

"What are you driving at?" York demanded.

"There is only one way to achieve that aim for which we would both make the final sacrifice," continued Kaligor. "By decoying the Three Eternals away from the island long enough to blow it up!"

Kaligor went on, and suddenly it was all starkly clear to York. . . .

A year went by, a year in which York, Vera and Kaligor labored over intricate mechanisms.

Then, one day, they faced the Eternals once again at their island. Kaligor sat hunched at the controls of the ship. His telepathic radiation issued from a human brain, clothed in an unhuman shell. Their fleshly bodies offering sharp contrast York and Vera stood back of him, almost woodenly tense, as their plan was started.

"We have a new weapon," boasted Kaligor to the enemy. "One that will not fail, Eternals. Death comes to you—"

Kaligor jerked a lever and a queer reddish beam sprang toward the enemy ship. It spangled against their screen, spread like red paint, but nothing else happened.

"A puny force, no better than your others!" chorused the Eternals triumphantly. "Now you, Kaligor and Anton York, will greet that most final master—Death!"

Again York's screen blazed to near extinction, as the Eternals threw their heaviest beams against it. And York's ship fled for the fourth time, as though this were some play that must be enacted over and over again for all eternity.

Inside the ship, Kaligor manipulated the controls with his flexible, tentacular fingers. He drove the ship away at its utmost acceleration, arrowing into the open void. The more tender forms of York and Vera flattened against one wall, their eyes closing. Kaligor glanced at them and nodded in satisfaction. It would take the Eternals some time to catch up, at this superpace.

On and on the chase went, at rates unknown and impossible to ordinary space ships that mankind knew. Mars flashed by, then the asteroids, Jupiter, and finally Pluto, and the two ships catapulted out into the outer immensity, exceeding the speed of light. This was the final pursuit. It could end in only one way.

KALIGOR felt the mental probe of the Three Eternals, playing over the unconscious forms of York and Vera, as though wondering what had happened to them. Even, for a moment, their visual teleray flicked about. Both probes left finally, and the chase went on. Kaligor, though he could not grin physically, was certainly grinning within his human mind.

Inevitably, the green-hulled ship crawled closer, closer. Finally, within range, it began to batter at the screen again. Kaligor watched the needle spin to the danger mark—and pass it. The screen was down!

Flame leaped into the ship, searing, scorching. Metal glowed and melted. The two mortal bodies of York and Vera, still unmoving, unconscious, were touched by naked fire and then they began to dance and writhe. But only for a moment. Soon they were gone, consumed.

"The final sacrifice!" murmured Kaligor, watching the ship burn away around him.

Everything was consumed around Kaligor. But his body could not be consumed. He was out in space, free, the ship and all it had contained disintegrated to the last atom. A multitude of fiery stars decorated all space, watching indifferently this battle between super-beings.

"Thus you have finally been defeated, Kaligor!" came the telepathic voice from the victorious Three Eternals. "Anton York and his mate are no more. And you—you will float through space, at your present velocity, for all eternity! It is a better end for you than what we had planned!"

But no answer came from Kaligor, to his ancient enemies. Instead, they barely detected a faint rumble.

"Binti! Mirbel! How good to see you again! I have just awakened from that dream. That dream of—what is it?—Earth! Binti, Mirbel, you are real. Not those others. They called you phantoms, Mirbel, and you, sweet Binti. They said you were just myths, figments of a dream I had spun in a long sleep. What was that other word? Yes, dummies. They called you dummies, and somehow, in that other dream of Earth, it was very significant, that word. Very significant, but I can't remember—I can't remember Binti. Mirbel I will stay with you now—"

"Dummies!"

One of the Three Eternals roared that to the others.

"Did you hear? I see it all now. We've been decoyed, lured away, while back on Earth—"

York, back on Earth, turned away from the mind concentrator with which he had been projecting his thoughts out into space. Impinging on a delicate relay within the cleverly wrought dummy of himself aboard Kaligor's ship, his mind had been there—as far as the Three Eternals' mental probe had determined. Vera's too. Now there was no reaction from the dummy-relay, proving the Eternals had finally caught up with Kaligor, after a long three-hour chase.

"It worked, Vera!" York cried. "The Eternals have been decoyed at least beyond Pluto, thinking all the time that you and I were with Kaligor, when they were only life-like dummies. Organic robots, really, since they held our thoughts. And pretty cleverly made—artificial protoplasm, exact duplicates of us, in case the Eternals used a visual check-up. Most important of all, the mental-relays within the dummies' skull-cases."

HE laughed almost gaily. "The Three Eternals were fooled by one of the simplest, oldest tricks in the Universe!"

Vera was less jubilant, more solemn. "Kaligor thought of it," she murmured. "His dream world was of some use after all. And now just think, Tony"—her voice became soft, pitying—"he must float on and on, in boundless space, never to know death. His sacrifice has been more, much more, than ours will be! And yet, perhaps, he would have it so. He will continue creating his mental universe, which he loves, and in which he—belongs. He will live in it! Perhaps—who really knows?—it is as real as ours, to us. Life is all in the mind—" Her voice trailed away moodily.

York nodded, subdued. Then he stirred himself and piloted his ship up and out of the dense island jungle in which it was hidden. It was his own ship. The one Kaligor had piloted away had been an outward duplicate, built secretly in Sol City's great factories.

"We have about three hours," said York, "before the Eternals come back. Three hours for which Kaligor traded an eternity of helpless drifting."

A few minutes later their ship hovered over the atoll marked for demolition, so that a geological process started years before might be reversed. York set his gamma-sonic weapon for instantaneous decomposition of the entire island to a depth of five miles. His generators were loaded to the full.

His lips pursed in anticipation as he depressed the button. Once again his unobtrusive violet ray shot forth from its gravity-fed power coils. Hissingly it struck the island, and the marble home of the absent Three Eternals, boring down at the speed of light.

Layers of matter peeled away and vanished in puffs of soot. Before the ocean waters roared in to fill the breech, the five-mile pit had been formed.

York flung his ship up at full speed as a spume of water spurted from the impact of walls of water crashing together with the force of solid steel. Down below, in the invisible depths of Earth that they had so recently quitted, a Titanic ground vibration had spawned. Like a match it would touch off the gunpowder of subsea plasma. There would be a clashing of Gargantuan forces, one started years before by the Eternals. For awhile the Behemoth of an earthquake would reign widely, on Earth's surface. But then it would be over, and Earth would be quiet. . . .

Three hours later, York found confirmation of his success. The bubbles arising from the Pacific floor had lessened by half. Mu was halting its slow upward climb. And in the Atlantic, a continent buried for twenty thousand years in its watery grave also ceased to seek an unnatural resurrection.

"It is done!" breathed York, with quiet pride.

Vera's face, strained for the past days, grew yet more haggard.

"It is done!" she repeated, but with a deeper meaning. Suddenly she was in his arms, sobbing. "Is there no escape, Tony?"

"I'm afraid not," returned York, gently. "The Three Eternals will seek their vengeance. They are powerful beyond measure, as we know. It would do little good to try to hide, in space. Their long-range instruments would search us out, even light years away. Kaligor made his sacrifice. We must make ours, as we agreed." He raised his head. "But Earth is saved. Earth gave us life. Kaligor too. We must think of it that

Featured in Next Month's Scientifiction Novel Section

DAY OF THE CONQUERORS

A Novel of Time's Dawn

By MANLY WADE WELLMAN

way, my darling of the ages!"

Vera dashed the tears from her eyes, bravely.

"We have lived a full life, Tony dearest. Love, understanding, and wisdom beyond the lot of ordinary humans have been ours. We have touched the stars for a brief moment, reveled for a bit of eternity. Dreamed a beautiful dream of immortality, like Kaligor. But we could not escape the laws of Fate, as we did the laws of life. It is over and I am content!"

They kissed, and clung to one another tightly, in their last embrace. Like gods they had lived, but unlike gods, they must die. The finger of a greater destiny had so decreed.

Not long after, the powerful telepathic voice of the Three Eternals beat in upon their minds. Their ship appeared, dropping from the sky vulturously. Bluntly, seeing the key-island destroyed, they promised swift death. York spun his ship away, as though trying to escape the inevitable. The large ovoid ship of the Three followed inexorably.

Pursued and pursuing, they shot far into space, out among the emptiness they both knew so well. When they had gone so far that York knew Earth could not be harmed by what was to come, he stopped. Grimly, he set his giant gravity coils, loaded to capacity with world-moving power. Then he smiled as he took Vera in his arms to await the end calmly.

Unknowing of his voluntary sacrifice, the Three Eternals rammed toward his ship enough power to grind it to sub-atomic shreds. It was like the lighting of a bomb. York's ship released its groaning load of energy in one colossal charge. The ether itself writhed.

Both ships vanished! Back on Earth, every electrical instrument burned out entirely from the mighty reaction waves that had resulted.

They were gone, the gods that Earth knew. Greek mythology and the mythology of Anton York would carry on the legends of their exploits, in distorted form. But the gods themselves were one with infinity. But there would be no mythology of Kaligor, the Eternal Dreamer. Indestructible, falling perhaps eventually into the hot core of some sun, his dream would go on on

HEADLINERS IN NEXT MONTH'S ISSUE

SPACE ships in the Stone Age! That's the startling phenomenon which confronts a prehistoric race in DAY OF THE CONQUERORS, a long complete novel by MANLY WADE WELLMAN. When Cro-Magnon man pits his native cunning against the superior forces of mental wizards from Mars the result is more than surprising. DAY OF THE CONQUERORS, a novel of Time's dawn, is featured in the special scientifiction section of the January THRILLING WONDER STORIES—with illustrations by Virgil Finlay!

* * *

MEET the Solar System's most captivating quartet—the Abbott family! Jim Abbott roamed the nine worlds hunting sensational material for his popular feature, "Seeing's Believing." And wherever he rocketed, his three domestic satellites tagged along. The Abbott four sees plenty on Venus that's hard to believe in SONG AT TWILIGHT, the first of a brand-new series dedicated to the "Judge Hardy family of the future." You'll find the amazing Echo plants and the Morgan Minstrels of Venus something to write in about, in this four-star interplanetary novelet by ROBERT ARTHUR.

* * *

WANT to be immortal? Then tune in to Station LIFE! The scientists of 1994 broadcast vibrations of eternal youth, and Earth's entire population dialed for the elixir. Everyone was able to live forever. And then, strangely, men wanted to die. But they couldn't. FREDERIC ARNOLD KUMMER, JR., tells the fascinating story of a world immortal in his latest novelet, REVOLT AGAINST LIFE, also included in our next issue.

* * *

THERE'S a highlight in our next issue. Another "Via" story by Gordon A. Giles! VIA PYRAMID continues the strangest chronicle ever reported by the first explorers of an alien planet. There's a thrilling climax in store for every follower of this great series in the latest account of the adventures of Venus Expedition Number 1.

* * *

OTHER stories by popular fantasy writers in the January issue of THRILLING WONDER STORIES. All our special, exclusive scientific departments back again, plus many other interesting features. It's another great number in our monthly parade of the best in scientifiction!

Science Questions and Answers

SOLAR PROMINENCES

What is the difference between the "active" and "eruptive" flamelike prominences shot out by the sun? That is, if there is any. —F. A., St. Louis, Mo.

There are several types of prominences exhibited by the sun, two being the eruptive and active variety you mention. The former appear above the surface of the sun and, while they may have high internal motions, often remain relatively fixed for hours or days. The eruptive prominences, as their name implies, are those in which material is actually shot from the sun into space.

Eruptive prominences usually start as active ones. In this stage they are often associated with sun spots. As activity increases, streamers are more pronounced and are drawn into the center of attraction, or the sun spot, from the space around the sun.

Sometimes the force increases rapidly, the prominence rises and starts to be eruptive, but is pulled back. Finally, however, part of the prominence may blow off completely and then it is really eruptive.—Ed.

MEASURING THE EARTH

I know that now, with aerial photography as efficient as it is, it's simple to map the world's geography. Yet how did the geographers of years ago map the earth and estimate its circumference?—A. G., Fort Wayne, Ind.

It is a practice in measuring parts of a circle to divide the circle into 360 equal sections called degrees. There is no reason why it should be 360, any more than, say, 240 or 400; all that is required is a number that can be divided by four, because it is convenient in measuring a circle to work on a quarter of the circle. It is obvious that if we divide the circumference of the earth into 360 equal parts, and we measure one part, we have only to multiply that measurement by 360 in order to determine the circumference of the earth.

We must first of all know where the Equator is, the midway line between the Poles. Mathematicians located this imaginary line by means of an instrument called a theodolite, fitted with a telescope, which enabled them to find the exact angle made by two imaginary lines, one passing from the horizon and the other to the Pole Star.

At the North Pole the Pole Star is immediately overhead, but as we travel from the Pole toward the Equator we have to look more and more slantingly at the Pole Star, until at the Equator it appears on the horizon. Its altitude is then said to be 0 degrees.

Now, to measure a degree on the earth's surface we find the altitude of the Pole Star by means of the theodolite. Perhaps we select a place where the altitude is 40 degrees. If we travel along the same meridian until we come to a place where the altitude is 41 degrees, we know that we have traveled over one degree. We can now measure this by a system of triangles, and it is found that the degree is 69 miles. Multiplying 69 by 360 we have 24,840 miles as the circumference of the earth. Which is exactly how the geographers worked it out.—Ed.

SOUND

My question isn't a technical one. It's simple, so simple that I haven't been able to find anyone able to answer it. Perhaps your very informative department can help. What I want to know is—why does my voice seem louder if I put my hands over my ears?—E. K., Columbus, Ohio.

We can help ourselves to answer your question if we consider the case of a seashell held over the ear. There is no sound made by the shell, but it picks up all the tiny sounds that are made in the room, and echoes them to the ear. Our hands held over our ears act in the same way. They echo the sounds as the shell does.

It is true that the specific case where the voice is our own is different from others. Perhaps we are inclined to think of sound as something that emanates only in one direction, away from its source. But, just like light, sound speeds equally in all directions, except in so far as special causes direct the waves or echo them.

Thus, the sound made by our voices travels around beside our ears, and is caught and echoed into them by our hands. Not only do our voices sound louder, but they also sound very strange to us. This is because we usually hear our voices partly through the air-waves coming against our ears, and partly by sound-waves traveling through the head from the voice-box to the ears. Anything that alters the proportion of these two seems to change the voice.—Ed.

GEOLOGICAL AGE

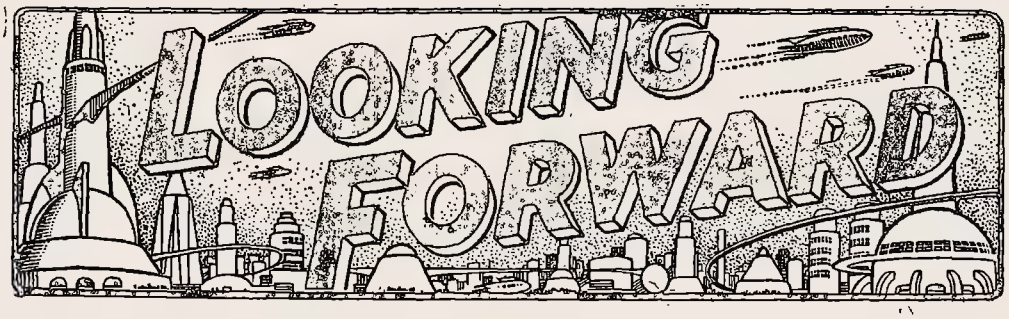
What is the age, approximately, of the geological strata of the surface of the Earth? Have geologists any idea?—L. D. G., Chicago, Ill.

The geological strata of the surface of the earth are only about half as old as was formerly believed, you may be surprised to learn. This change has been made as the result of recalculation of the age of rocks based on a re-examination of their content of a radio-active material by newer methods and a new check-up on standards made at the Massachusetts Institute of Technology by a group of scientists.

The total age of the earth remains about the same, 2,000,000,000 years, but the relatively recently laid down strata, post-Devonian, which was supposed to have been formed about 210,000,000 years ago proves to be much younger, about 130,000,000 years. More ancient strata, late Huronian, which was believed to be about 530,000,000 years old is now dated at 500,000,000 years ago.

These findings indicate that a much longer period was spent by the earth in passing through its earlier formative stages and that the changes now studied by the geologists took place more recently.—Ed.

THIS department is conducted for the benefit of readers who have pertinent queries on modern scientific facts. As space is limited, we cannot undertake to answer more than three questions for each letter. The flood of correspondence received makes it impractical, also, to promise an immediate answer in every case. However, questions of general interest will receive careful attention.



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That's headline news, and we've been waiting to make this sensational announcement for more than two years. From the very day that THRILLING WONDER STORIES first appeared on the newsstands thousands of readers all over the world were unanimous with one request. That request—that their favorite science fiction magazine be published on a monthly basis.

Such an avalanche of readers' wishes deserved more than our consideration. Something had to be done about it. And so now, after months of careful planning, we stand ready to give you twelve all-star issues of THRILLING WONDER STORIES every year! Double treats from cover to cover!

We're in big-time now, and the unrivaled success of T.W.S. is a splendid tribute to our many thousands of followers everywhere whose enduring loyalty has made this revolutionary venture possible. Now, more than ever before, your continued support will be necessary to our progress. If the magazine is to grow, evolving into the finest and most distinctive publication ever conceived, we'll all have to do our part.

You can do your part by criticizing each and every issue, telling us your wants and dislikes. You can help us by introducing THRILLING WONDER STORIES to your circle of friends, acquainting them with scientifiction.

And we'll do our part by giving you the greatest science fiction magazine in the world!

VISIT THE FUTURE!

WOULD you like to go along on a time-traveling cruise with us? Visit the future—our future?

We've just been cruising about in 1940—scheduling and planning the stories and special features for the coming year. And the prospects look pretty bright!

In science, the big event of 1940 will probably be the completion of the giant new telescope at Mt. Palomar. But in science fiction, the big events for the next year will take place right here in THRILLING WONDER STORIES!

Star authors star novels . star features!

Flash! We've lined up a splendid array of really important novels for our special scientifiction section. Novels by such leading authors as Clifford D. Simak, Jack Williamson, Carl Jacobi, John Taine, and Frederic Arnold Kummer, Jr.!

Flash! The brightest, most popular characters and series have made their original appearances in previous issues of T. W. S. We've ordered brand-new stories concerning the exploits of these favorite characters, and in the coming

MOST POPULAR STORY IN OCTOBER ISSUE

Here, in each issue, THRILLING WONDER STORIES names the most popular story in the preceding issue.

The best-liked story in the October issue, based on an analysis of all letters sent to the editor, was:

THE ENERGY EATERS

A Novelet

By Arthur K. Barnes and Henry Kuttner

Second and third places, respectively, went to John W. Campbell, Jr., and H. L. Gold for PLANET OF ETERNAL NIGHT and HERO.

Which do you consider the most outstanding science fiction story in this issue? Whether it's a novelet, short story, or short short—your vote will designate your favorite story.

issues you will find great new stories featuring Gerry Carlyle . . . Hollywood-on-the-Moon . . the "Via" expeditio ıs . . . Pete Manx, time-traveler . . Tubby. And get ready for Robert Arthur's new interplanetary series, featuring the streamlined Andy Hardy family of the future!

Flash! More contests coming up!

Flash! THRILLING WONDER STORIES will continue to publish *first stories* by new authors!

Flash! We've discovered and published the first science fiction yarns of such writers as Frederic Arnold Kummer, Jr.; Robert Moore Williams; Oscar J. Friend; Sam Merwin, Jr.; Hulbert and John Coleman Burroughs; Helen Weinbaum; Henry Kuttner; Paul Chadwick; Will Garth; M. Krulfeld; Ward Hawkins; and a great many others. And we intend to continue introducing new talent.

Flash! In each issue T. W. S. presents a parade of the most interesting science features in the field. Watch for the scintillating, up-to-the-minute features to be added during 1940!

It will be a thrilling new year for fantasy followers! —THE EDITOR.

The Three Planeteers

From Mercury to Pluto,
From Saturn back to Mars,
We'll fight and sail and blaze our trail
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Recognize the song? It's the battle-cry of The Three Planeteers, and they're coming—in the January issue of our companion scientifiction magazine, STARTLING STORIES. From Venus, Earth and Mercury, the three most glamorous adventurers in the Solar System band together for a mysterious purpose.

You've acclaimed Edmond Hamilton's masterful novel, "The Prisoner of Mars," as one of the four-star hits of all time. Now read Hamilton's latest, THE THREE PLANETEERS, for a scientifiction classic that's streamlined for thrills. It's a long, booklength novel, published complete in one issue. And it's illustrated by Virgil Finlay!

Amateur Story Contest

THRILLING WONDER STORIES is the only national magazine publishing stories by its own readers! We believe that every one of our followers has at least one story that would make interesting reading. We want to see that yarn, and if it's enjoyable

reading we'll be glad to publish it. Here's a chance for all you fans to see your own story in print in your favorite magazine. Three of your fellow-fans have already rung the bell—why not you?

Write up that pet plot you've been keeping to yourself all these years. We'd like to see it. Prize stories are purchased at the same rates paid to our staff writers.

The requirements are simple. Authors must be amateurs. Anyone who has ever had anything published professionally is not eligible. Type your stories double-spaced on regular manuscript paper. And enclose a stamped, self-addressed envelope for the return of your manuscript if it is unavailable.

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Join the League

Have you joined the SCIENCE FICTION LEAGUE yet? It's an international organization composed of the world's most enthusiastic followers of science fiction—and it fosters that intangible bond between all science fiction readers.

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(Continued on page 122)

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(Continued from Page 121)

date and title of the magazine show, and send it, together with the coupon appearing on Page 124, to SCIENCE FICTION LEAGUE, 22 West 48th St., New York, enclosing a stamped, self-addressed envelope.

And readers—write the editor of THRILLING WONDER STORIES a regular monthly letter. We want all your suggestions and criticisms. They are helping to make T.W.S. the magazine you like best.—THE EDITOR.

CHAPTER NEWS AND GENERAL ACTIVITIES

Los Angeles Chapter Centennial Meeting

THE Los Angeles Chapter of the Science Fiction League, the fourth chapter in the nation, on Thursday Night, August 17th, 1939, held its ONE HUNDREDTH CONSECUTIVE MEETING.

Among the famous personages who have visited the club we number the following scientifiction celebrities: E. E. Smith, Dr. D. H. Keller, Joe Skidmore (deceased), Arthur J. Burks, Chas. D. Hornig, Julius Schwartz, Bob Keller, Joe Skidmore (deceased), Arthur J. Barnes, Henry Kuttner, Mort Weisinger, Tom Mooney, Maurice DuClos, C. L. Moore, and Forrest J. Ackerman. Three authors are regular attenders, Henry Kuttner, Bob Olson, and Arthur K. Barnes.

Besides this, the Chapter issued its own fan magazines, one of which was acclaimed by all as the best mimeographed and edited magazine of them all, IMAGINATION! Due to lack of time to put out a regular magazine, the club issues several quarterly publications, THE VOICE OF THE IMAGI-NATION, MIKROS, FUTURIA FANTASIA, and various booklets.

It would be unfitting not to pay tribute to those who have given their time and energy to make these four years possible. To Forrest J. Ackerman and Morojo we owe much to them for their work on our magazines in stenciling and editing and especially to Forrest Ackerman, who has done no end of extra work for the organization, serving at one time as Secretary. We owe a great deal to William S. Hofford and E. C. Reynolds for striving in the early days as Directors to get the Chapter going. We certainly would not be as strong as we are at present if it hadn't been for the work of our Director, Russel J. Hodgkins, who has been unanimously re-elected three times.

To Alvan Mussen, Roy Test, and Ray Bradbury we owe a debt in their keeping of the ever growing and now 100% complete Library. Incidentally, Forrest J. Ackerman and our Director Hodgkins have not missed ONE of the hundred meetings.

After four years, LOS ANGELES SALUTES YOU, and just watch us the next four!

Chapter meets every Thursday, Clifton's Café, 648 S. Broadway, Los Angeles, Calif., Little Brown Room, 3rd floor rear, from 6:00 P.M. on. Contact with Secretary T. Bruce Yerke, 1223 Gordon St., Hollywood, California. Report by T. Bruce Yerke.

QUEENS CHAPTER

PLAN OF WORK FOR QUEENS S.F.L., SEASON OF 1939-1940

1. Membership drive. Our goal—50 members by 1940.

2. An issue of one professional science-fantasy magazine will be reviewed at every meeting as usual.

3. At least one science fiction celebrity will be guest speaker at every meeting as usual.

4. A large delegation will be sent to the Philly conference. The ladies auxiliary will also be represented.

5. At least two reels of science or scientifilms will be shown at every meeting, with a full two hour scientifilm to be shown at the annual meeting.

6. Discussion of the 1940 Chicago Science Fiction Convention.

7. Preliminary work will be done on the making of an amateur scientifilm in conjunction with the Scientifilmakers of N. Y.

8. At least two debates on some important science fictional topic to be held sometime during the season.

9. An effort will be made to bring about a state of harmony and cooperation in the science fiction fan field.

10. Our efforts to spread the interest in the reading of stf will be continued stronger than ever before.—William S. Sykora, Mario Racic, Jr.

CINCINNATI CHAPTER

Dale Tarr, of 816 Elm Street, Cincinnati, Ohio, has organized a Chapter of the SCIENCE FICTION LEAGUE, he reports. Other members include Walter E. Marconette, John F. Chewning, Ross Rocklynne and Charles R. Tanner.

All readers of T.W.S. desirous of joining the Cincinnati Chapter are urged to communicate at once with Mr. Tarr, at his address.

CHICAGO CHAPTER

W. Lawrence Hamling announces the reorganization of the Chicago Chapter of the SCIENCE FICTION LEAGUE. The Chicago Chapter, at one time the most active in the League, will hold monthly meetings henceforth. Plans are already underway in preparation for the 1940 WORLD SCIENCE FICTION CONVENTION, to be held in Chicago.

Mr. Hamling is the Director of the Chicago Chapter, and all Chicago fantasy followers interested in joining should communicate with him, 2609 Argyle St., Chicago, Ill.

Other charter members of the Chicago Chapter include: Jack Darrow, Howard Funk, Neil Dejack, Henry Bott, and Chester Geier.

NEW MEMBERS

UNITED STATES

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(Continued on Page 124)

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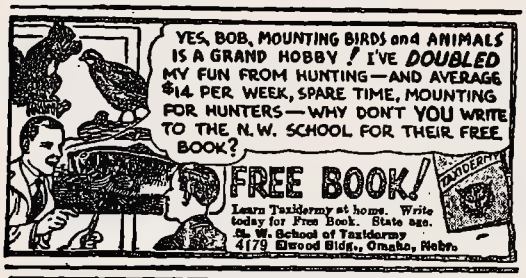
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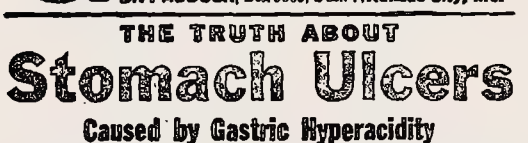
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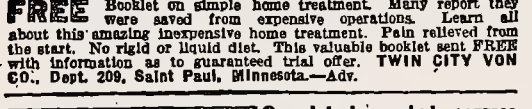
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12-39

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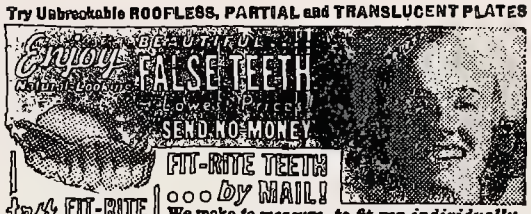

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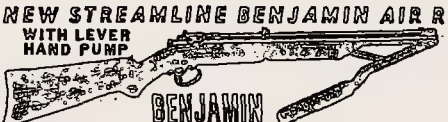

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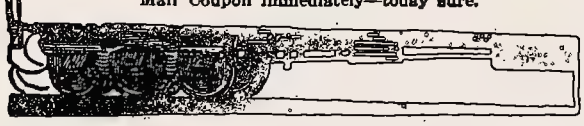

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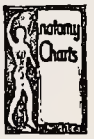
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THE STORY BEHIND THE STORY

(Continued from page 10)

matter, and says, "There is, however, a very real danger attached to the speeds which interplanetary travel demands — acceleration."

That, of course, is the deadly peril. In commercial space travel it will be *minimized* or eliminated by slow, gradual acceleration until the ship reaches interplanetary speeds. But space stunting is—stunting. Taking chances. Giving the audience the thrills they demand, regardless of hazard to life and limb. Modern airplane stunt fliers die with some frequency. And they do not have to contend with the frightful, irresistible acceleration of giant rockets powerful enough to propel a ship at 25,000 miles an hour—which is the speed the rocket builders expect eventually to attain.

Try and conceive of it. Try and imagine the awful thrust of that supernormal drive. And try and picture ordinary human beings surviving it! Maybe it can be done. I don't know. But, at any rate, there seemed to be story material in the idea, and I hope that readers will agree with me.

MESSAGE FROM MARS

Recently a group of scientists in New York City completed a brand-new experiment. Armed with thousands of volts of broadcasting power, they hurled signals at the planet Mars, in an effort to establish communication with the crimson world. Whether or not their powerful radio signals penetrated the barrier of the Heaviside layer that envelops our sphere is problematical, but at any rate the scientists want us to go on record as being the first civilization to attempt communication with an alien world.

And that's the whole point. How do we know that Mars has never tried to establish communication with us? Suppose the mysterious markings that outline Mar's surface are not "canals," but spell a message . . . a message of doom to Earth?

That's the theme that interested Frederic Arnold Kummer, Jr. and, in his novelet SIGNBOARD OF SPACE, he does justice to that idea. Witness:

The story behind the story is, in my estimation, often as interesting as the story itself. Certainly when I sat down at my desk to begin a story some months ago I had no idea of what was to develop later into **Signboard of Space.** Stuck at first for an idea, I lit my pipe and stared at the large globe that resides just at the left of my typewriter.

Pretty soon I was off on a completely irrelevant (or so I thought) speculation as to what the outlines of our continents, seas, and rivers would suggest if viewed from outer space. Italy would appear as a leg and foot, Nova Zembla as a worm or slug, while New Guinea has rather a tortoise-like appearance. Silly day-dreaming, said my conscience, and you'd better get to work. So I took down Lowell's "Mars" and flipped through it. The business of seeing pictures in maps, however, still lingered. On Lowell's map of Mars . . . Mercator projection . . . I began to pick out letters, A, V. K, C, and nearly the entire alphabet, from the criss-cross of "canals." Then an idea struck me. What if the surface of a planet were used as a state? **Signboard of Space** was in its infancy!

Next I began to ask myself questions. What was the writing to say? Surely a warning, for nothing else could be so important as to demand such vast work. Why a warning? Because some cataclysm had overtaken their own planet and they wanted to tell mankind

BEST FUN, FICTION AND FOTOS IN

to stay away from the death that lurked there. All right, what will the catac am be?

Here I was stumped. Insects, plagu invading races? All old stuff. I looked r ditatively at my pipe's amber stem. Amber.. resin . . plastics . . . polymerization . . . I had it! A catalyst which, inhaled, drew the molecules together, turned all animal life into a hard plastic like bakelite, or amber.

One more step remained. Why should Mars warn a planet on which, so far as they knew, no life existed? Well, now suppose they had sent two uncontaminated members of their own race to Earth in order to carry on life in the Solar System? Good enough! Those two would be the beginning of true homo sapiens, would relapse into savagery after landing, rise once more to high civilization. In time they would even build space ships. Therefore they must be warned away from Mars, prevented from taking any of the deadly catalyst back to Earth.

So there you have it. A globe, a map of Mars, a pipe, a few questions to overcome apparent flaws in plot. Add a pinch of psychology, a lot of hard work, and you have **Signboard of Space.** I hope you like it.

THE WORLD OF YESTERDAY

The New York World's Fair symbolizes the World of Tomorrow. But to Pete (ROMAN HOLIDAY) Manx, it represented the World of Yesterday. All's fair in love and war and fiction, so Manx annihilates time and space and history as he polevaults across a few centuries into ancient Egypt. It's a colossal show, so help us, by the seven sacred scarabs of the Sahara!

Incidentally, more of Pete Manx' hysterical historical adventures coming soon, if the sequel-seekers are interested. For the present, here's the lowdown regarding WORLD'S PHARAOH from Manx' proud barker, Kelvin Kent:

When I wrote **Roman Holiday** I never guessed readers would like it well enough to request a sequel. I'm still amazed. But Pete Manx is the sort of guy who can't stay out of a scrape, so off he went to Egypt. And, by a curious coincidence, I got the idea for **World's Pharaoh** in a dream, just as I did in the case of the first yarn.

Visiting the World's Fair helped, probably. The Trylon and Perisphere are things to dream about, and I'd been racking my brain for an idea suitable for a sequel. All I'd decided was that Pete might visit ancient Egypt. Anyway, that night I had a confused dream about the pyramids, the Trylon, and so on. When I woke up it seemed a pretty fantastic supposition. But, on second thought, it wasn't to far-fetched. And Pete is the type of lad who would make the best of things even under old Cheops.

I didn't use all my dream—not the part where I jumped off the head of the Sphinx clad in my nightshirt, for example. It didn't quite seem to fit into the story. But I did the necessary research—quite a lot of it, too—and went ahead and wrote the tale.

Finally, I should mention in passing that I am not related to Mayor LaGuardia or Mr. Whalen.

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(Concluded on page 128)

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(Concluded from page 127)

Should Dr. Freud deign to read **The Einstein Slugger,** he'd have something brisk to say about wish-fulfillment dreams. And he'd be right.

Many readers of THRILLING WONDER STORIES must like to box; some of them must be clumsy at it, like me, must even have the same radiant dreams of being too fast, too smart, too brilliant, for anyone. I was dreaming thus when I saw movies of Joe Louis' latest massacre. When it came to the slow-motion part, and I sat diagnosing the exact brutality with which young Joseph clustered his killing punches upon the opposition jaw like so many lethal grenades, I mused: "If only the other poor lug could see Joe as a slow movie—he could duck all those, counter there and there and there, and be champion of the world instead of a sad study in still life."

Then and there, came the inspiration (if it merits the term) of **The Einstein Slugger.** I talked it over with the editor of T.W.S., and we arrived at a climax for it—a sort of awakening from the aforesaid dream, and a hot time salvaging anything therefrom. For characters, I tried to synthesize and humanize at once—I don't know with what success. For background, I drew on my own experience, in a previous incarnation as long ago as the 1920's, when I was both amateur boxer and sports writer.

But don't criticize me because I didn't make the professor's accelerator device more realistic. If I could do that, I might make a real accelerator, and get back into the ring.

ANSWERS TO SCIENCE QUIZ

(See Pages 40-41)

POSITIVE OR NEGATIVE

1. True.
2. True.
3. True.
4. False. Some fresh-water species (landlocked salmon of New England lakes, etc.) never migrate.
5. True.
6. True.
7. False. It may be wet or dry.
8. False. Just the opposite!
9. True.
10. True.
11. False. The movements stimulate the equilibrium of the ear.
12. False. With the exception of the palms of the hand and soles of the feet.
13. True.
14. True.
15. True.
16. True.
17. False. The one carrying alternating current has greater resistance.
18. False.
19. True.
20. False. It's the seed, of course!

TAKE A LETTER—ANSWERS

1—a, 2—b, 3—c, 4—d, 5—c, 6—b, 7—a, 8—d, 9—c, 10—b.

FROM HERE TO THERE

6, 5, 3, 8, 9, 1, 10, 4, 7, 2.

FOOD FOR THOUGHT

1—sugar; 2—protein; 3—glycerin; 4—starch; 5—maltose; 6—cellulose; 7—casein; 8—lactose; 9—galactose; 10—vitamin; 11—albumin; 12—carbohydrate; 13—sucrose; 14—dextrose; 15—monosaccharide.

SUNRISE SERENADE

1—east.
2—north, east.
3—north, east.
4—east.
5—south, east.
6—south, east.

BEST FUN, FICTION AND FOTOS IN

THE READER SPEAKS

(Concluded from Page 94)

ing the mind of all save good sounds a bit too miraculous to me. Friend's style, however, is interesting and lucid, and I hope for better stuff from him in the future.

There was but one distinctly corny piece in the October number—Sam Merwin's "The Scourge Below." Confidentially, Samuel, there is a scourge above, too. It's stories woven about the nefarious activities of super-intelligent insects.

To return to the shorts, "Hades" is the best amateur yarn you've come up with yet. The title and setting were striking and the practical application of Moisson's famous crucible experiment was distinctively original. Gold's "Hero," simply and movingly done, was the best of the short stories. Its human interest was poignant and believable, and, surprisingly the science was completely subordinate to the plot. A welcome and refreshing yarn.

"Via Venus," like the preceding "etherline" stories, consists of no more than a series of episodes strung together and culminating in a single climactic incident—here the death of Domberg. But Giles has such a gripping narrative style that his yarns, episodic as they are, become masterpieces. I like the diary method of presentation. Remember Dr. Clark's entertaining "Experiment?"

Concerning illustrations — Wesso has no peer when doing portraits and Paul none when doing interiors. Finlay is excellent, too. When you get that Williamson novel, put either Finlay or Wesso to work on it. Another thing, scatter the cuts of the characters through the first dozen pages instead of massing them immediately after the title page. The best job of illustrating I ever saw, "The Prisoner of Mars" by Wesso in the May STARTLING STORIES—was arranged that way.

Could you get a novel by Murray Leinster or Don Stuart? They both do superb work. I would also like to see a short by Robert Bloch. Don't be afraid of the unusual, off-the-beaten track stuff. The above authors are at their best when working on yarns tinged with fantasy. Who could forget Williamson's "The Infinite Enemy," etc.? I have read but little by Zagat, but he seemed to be a top-notcher. What has happened to him? This'll be all until next issue when (I hope) I can rave over the exploits of the Anton York.—Wolverine, Michigan.

(Thank you for your expert analysis of T.W.S.'s bill-of-fare and your suggestion regarding portraits. Jack Williamson's novel, "The Fortress of Utopia," in the current issue of STARTLING STORIES, is illustrated to your liking—and by Wesso! More stories by Oscar J. Friend coming soon, and Robert Bloch is in the offing.—Ed.)

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30x5.00-20	2.85	1.25
5.25-17	2.90	1.35
28x5.25-18	2.90	1.35
29x5.25-19	2.95	1.35
30x5.25-20	2.95	1.35
31x5.25-21	3.25	1.35
5.50-17	3.35	1.40
28x5.50-18	3.35	1.40
29x5.50-19	3.35	1.45
6.00-17	3.40	1.40
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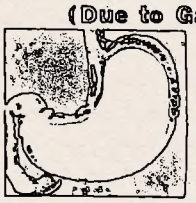

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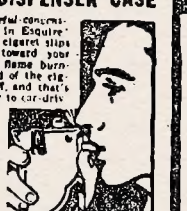

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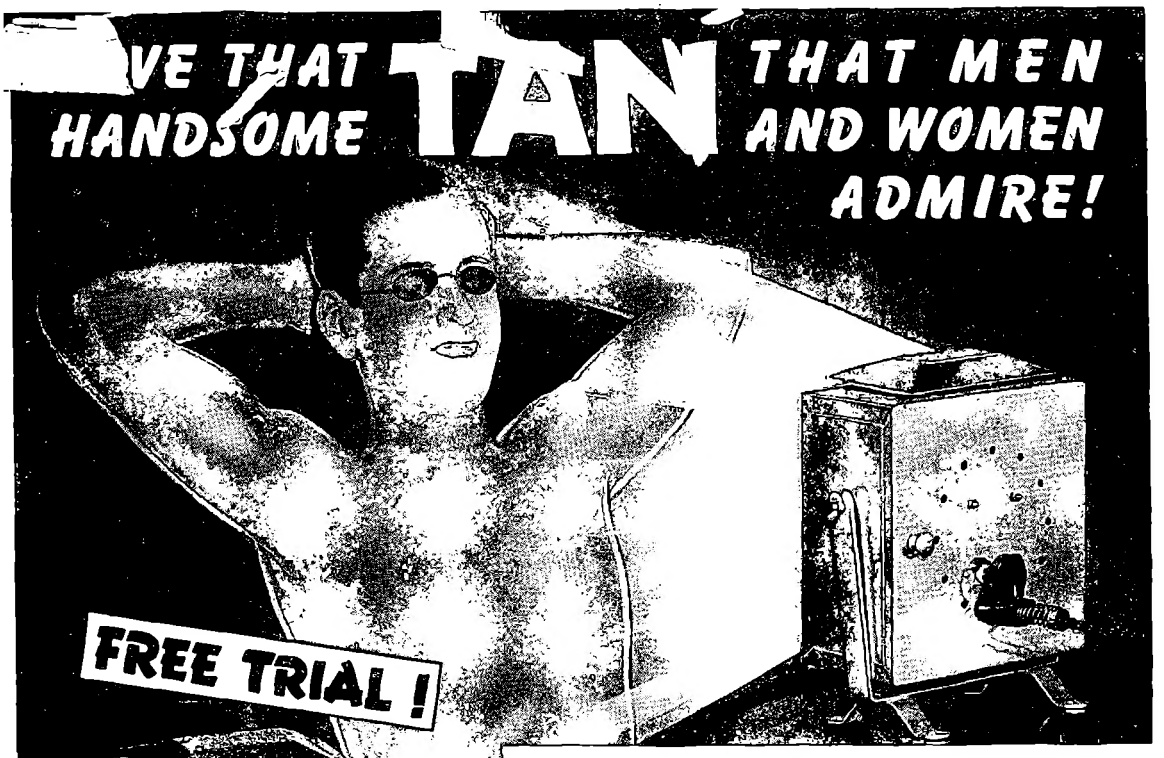

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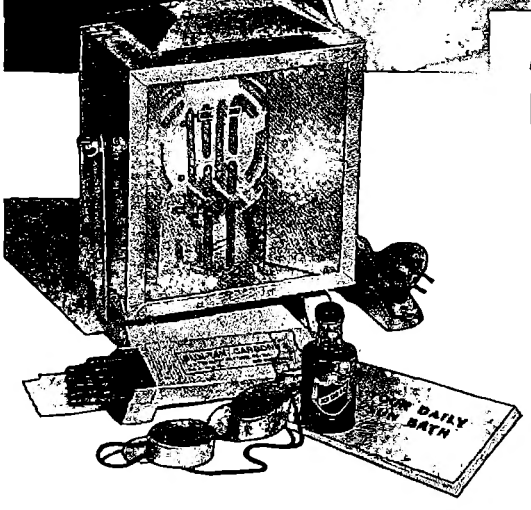

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